ABSTRACT

In order to define the path of a medieval road, it is essential to use different kind of sources, like the written texts, the archaeological and material remains referred to the road, the study of the geomorphological context, the toponymy. Modern technologies can help us to examine and use all these sources: first of all, the creation of a database could permit to manage all the data we have about a road; secondly, the database could be loaded in a GIS software, in order to answer to some historical, archaeological and topographical questions. This methodology can be applied to the “Via Francigena” case: starting from Sigeric’s itinerary, which is the main source about the road, it is possible to create a database containing all the data about the *submansiones* mentioned by the text. Furthermore, loading the database in a GIS software gives the possibility to study the road in its entire length, helping us to understand the relationships between the Via Francigena, the other itineraries and the ancient roads. But at the same time, this enables us to study the route in a specific region, and it could also be the opportunity to comprehend the evolution of the historical landscapes, focusing both on the track of the road and on the territory that the road has conditioned, according to the concept of “street areas”.

**Keywords:** Via Francigena; Sigeric’s itinerary; Database; GIS; Topography
di un database permetterebbe di gestire tutti i dati che possediamo su una determinata strada; in secondo luogo, il database può essere caricato in un software GIS, per rispondere ad una serie di interrogativi di carattere storico, archeologico e topografico. Questa metodologia può essere applicata al caso della “Via Francigena”: partendo dall’itinerario di Sigerico, la fonte principale sulla strada, è possibile creare un database contenente tutti i dati relativi alle submansiones citate nel testo. Inoltre, caricare il database in un ambiente GIS permetterebbe di studiare la strada nella sua intera lunghezza, permettendo di comprendere quali relazioni ci fossero tra la Via Francigena, gli itinerari alternativi e l’antica viabilità romana. Ma allo stesso tempo, ciò permetterebbe anche di studiare il tracciato della strada in una regione specifica, e questa potrebbe essere l’opportunità di analizzare l’evoluzione dei paesaggi storici, focalizzando l’attenzione sia sul tracciato della strada che sul territorio che il tracciato ha condizionato, facendo riferimento al concetto di “aree di strada”.

**Keywords:** Via Francigena; Itinerario di Sigerico; Database; GIS; Topografia

**Introduction**

In 990 Archbishop Sigeric travelled from Canterbury to Rome, to fetch his *pallium*. Making this journey could mean to risk your own life: pilgrims had to walk on unsafe roads and face the perilous crossing of the Alps. Here a Sigeric’s predecessor, Aelfsige, died of cold, during his journey to Rome in 959 (Ortenberg, 1999). But in the 10th century, the political situation was complex too: the Carolingian Empire did not exist anymore, so, to reach Rome, the pilgrims had to pass through several small “states”, under the local authority of counts and lords. At the same time, in France there was the first Capetian king, while Rome was the theatre of a conflict between the German Ottonian emperors and the Roman aristocracy (Ortenberg, 1990).

Despite all the dangers, a medieval pilgrim could have not renounced to visit Rome. Sigeric made this journey, and maybe he would have been one of the many unnamed pilgrims, if he did not leave a trace of his travel: the text we call “Sigeric’s Itinerary”.

Since its first publication in 1860 (Hook, 1860) the itinerary has been studied by scholars of different academic disciplines, like history, archaeology and philology. The text became increasingly important as a primary source for the study of the Via Francigena, since the publication of Julius Jung’s article about the road in 1904 (Jung, 1904; Szabò, 1996).

The aim of this paper is to suggest how modern technologies could help us to collect and organise all the information we have about Sigeric’s itinerary and the Via Francigena.

In the first part, there will be a short description of Roman itineraries, in order to understand their differences if compared to the medieval ones; then, there will be a focus on Sigeric’s itinerary, to comprehend why it was written, and how we could approach to it; in the last part, we will see how database and GIS software could be indispensable tools to study Sigeric’s diary and, as a consequence, the Via Francigena.
In particular, GIS software can be useful not only to define the track of the road, but also to study the territory that the road has conditioned.

1. Itineraries in the Roman Empire

In the Roman world, itineraries were written documents, containing information about the main roads of the Empire, and the distances between cities and stages connected by them (Dilke, 1987; Uggeri, 2000). They were widely used for both military and civil purposes, and were essential tools for travellers.

There were two main type of itineraries: the written ones (*itineraria adnotata*) and the painted ones (*itineraria picta*). The written itineraries were the most common: they were list of places along routes, containing distances among them. The painted itineraries were schematic maps, with representation of roads, cities and distances.

We have several examples of written itineraries, e.g. the “Antonine Itinerary” or the “Bordeaux itinerary”, while the painted ones are less numerous; the most important is the “Peutinger map”. All the itineraries indicated not only cities and towns, but also the relay stages (*stationes*) of the Roman postal system (*cursus publicus*): they were divided in *mansiones* (overnight stopping places) and *mutationes* (stopping places for changing horses).

Let us see briefly some examples of written itineraries, to understand how they were elaborated.

The “Antonine Itinerary” is probably the most important written itinerary survived, even if it is a collection of itineraries, ordered by a geographical criterion and covering most of the provinces of the empire. The title mentions an emperor of the Antonine dynasty, maybe Caracalla, so the text can be dated to the 3rd century, with later additions during the 4th century. Usually, for every road it is indicated its name or its starting point, its entire length, and then a list of toponymies and distances, expressed in Roman miles (except for Gaul, for which are used the leagues).

Let us see a concrete example: the final part of the itinerary from Lucca to Rome along the Via Cassia, which will become part of the Via Francigena in the Middle Ages (Miller, 1916):

*Itinerarium Antonini* (286, 1-5)

<table>
<thead>
<tr>
<th>Place</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulsinis</td>
<td>80</td>
</tr>
<tr>
<td>Foro Cassi</td>
<td>28</td>
</tr>
<tr>
<td>Sutrio</td>
<td>11</td>
</tr>
<tr>
<td>Baccanas</td>
<td>12</td>
</tr>
<tr>
<td>Roma</td>
<td>21</td>
</tr>
</tbody>
</table>

On the left we have the list of toponyms, on the right the distances. The figures are referred to the two previous stages: for instance, from Vulsinis and Foro Cassi there are 28 miles, from Foro Cassi to Sutrio 11, and so on.
Another interesting itinerary is the *Itinerarium Burdigalense*, which is the most ancient report we know about a pilgrimage in the Holy Land. It was written by a pilgrim of Bordeaux, who made his journey from his hometown to Jerusalem in 333, and came back the year after. He reached Jerusalem travelling by land through northern Italy and the Danube valley to Constantinople, then through Asia Minor and Syria. On the way back, he followed the Egnatia road to Aulona, then he sailed to Otranto, along the Appia road he reached Rome, and finally went to Milan, from where he travelled to Bordeaux following the same path of the first journey.

Let us see an example from the beginning of the route from Rome to Milan (Miller, 1916):

*Itinerarium Burdigalense* (613, 1-4)

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>mutatio ad vicensimum</td>
<td>xi</td>
</tr>
<tr>
<td>civitas vrcriulo</td>
<td>xii</td>
</tr>
<tr>
<td>civitas narniae</td>
<td>xii</td>
</tr>
<tr>
<td>ciuitas interamna</td>
<td>xii</td>
</tr>
</tbody>
</table>

As we have seen for the *Itinerarium Antonini*, we have a list of toponyms and distances (recorded in leagues in the first part of the itinerary, then in Roman miles), but the anonymous pilgrim added further information: he specifies for every stage its typology (*civitas, mansio, mutatio*). Inside the text there is also a detailed description of the Holy places visited by the pilgrim.

The most important painted itinerary conserved, the “Peutinger Map”, is a medieval copy of an ancient map (probably of the 4th century), realised in the 12th or 13th century (Albu, 2014; Dilke, 1987; Talbert, 2010; Uggeri, 2000). It is a parchment roll, composed by 11 sheets (the first one on the left is missing), and was primarily drawn to show main roads, staging posts, distances between stages, cities, rivers, and forests. The proportions of the map are such that distances east-west are represented at a much larger scale than distances north-south, while its orientation is north-south.

Let us see an image of the map, related to the same part of Via Cassia we have already cited, and that will become part of the medieval Via Francigena (*Figure 1*).

We can see that the roads are drawn in red, while the stopping places names are in black, followed by the distance to the next stop (distances are recorded in Roman miles, but for Gaul they are in leagues, for Persian lands in parasangs, and for India in Indian miles). Rome is represented as a female figure on a throne holding a globe, a spear, and a shield, while there are other graphical representations of cities, harbours, granaries and settlements throughout the map. Mountains are marked in pale brown and principal rivers in green.
2. Itineraries in the Middle Ages

The fall of the Roman empire entailed the progressive decay of the Roman road system. Some roads were still used in the early Middle Ages, other were abandoned, but the most important thing to underline is the absence of a central power able to maintain such a complex network as the Roman road one (Patitucci & Uggeri, 2007). Rome itself had changed its role: it was not the capital of an empire anymore, but it became one of the most important Christian city, reached by several pilgrims. In fact, we know that in the early 8th century, the *Schola Saxonum* was founded in Rome: it was a hospice for Anglo-Saxon pilgrims, located near St Peter’s, and it was funded both by English Kings and by popes (Moore, 1937; Ortenberg, 1990). The *Schola Saxonum* was the earliest of several hospices built for pilgrims coming from northern Europe: we know that others were reserved to Lombards, Franks and Frisians (Moore, 1937).

The pilgrims who decided to travel to Rome needed information about the roads, their condition and the stages along the path. It is supposed that oral tradition was the first source of information for them (Birch, 2000; Webb, 2002), but the written itineraries were important too, because they were written by someone who had already made the journey.

Until the 10th century, we have only concise descriptions of the itineraries to Rome (Patitucci Uggeri, 2004; Stopani, 1988). They are contained in texts like hagiographies, biographies or historical sources. An example is the “*Itinerarium Sancti Willibaldi*”, dated to the 8th century, in which it is said that the saint “inde Romam tendentes, Lucam, Tuscie urbem devenere” (Stopani, 1997).

*Figure 1.* A detail of the Peutinger Map. It is underlined the first sector of the Via Cassia, which departed from the Via Clodia at the *mutatio* called *Ad Sextum.* Source: © 2010 Christos Nussli, www.euratlas.net
The earliest detailed list of stages from Northern Europe to Rome is the one related to the journey of Sigeric, Archbishop of Canterbury, who went to Rome in 990 to fetch his *pallium* (Birch, 2000; Ortenberg, 1990; Stopani, 1988).

It is not a coincidence that a text like this had been written in Anglo-Saxon England: we have already seen that a *Schola Saxoniae* was built in Rome in the 8th century, and several pilgrims (kings, members of the clergy, nobles, etc.) went by that time from England to Rome (Birch, 2000; Ortenberg, 1990; Stopani, 2015). This is because of the English veneration for St. Peter and Gregory the Great, the pope who fostered the conversion of England (Ortenberg, 1990). Sigeric had another important reason to travel to Rome: the collection of the *pallium*. He was not the only one: the journey to Rome was becoming usual for archbishops in the late Anglo-Saxon period (Ortenberg, 1990).

After the 10th century, we have several detailed sources about the itineraries followed by pilgrims to reach Jerusalem. We can mention the diary of a twelfth-century Icelandic abbot, Nikolas of Munkathvera, written in narrative form, the *Annales Stadenses*, written by Albert of Stade between 1240 and 1256 and containing a description of the roads to Rome, and the *Iter de Londinio in Terram Sanctam*, realised by Matthew Paris in 1253 as a map for the pilgrims directed to Jerusalem (Federzoni, 2015; Stopani, 1988).

### 3. Sigeric’s Itinerary: structure and contents

Sigeric’s diary is the most ancient itinerary of the Middle Ages. But how was it composed and which kind of information contains? Let us see the structure of the text. First of all, the document is opened by the sentence “*Adventus archiepiscopi nostri Sigerici ad Romam*”, which suggests that the material author of the text was not Sigeric himself, but a member of his retinue (Magoun, 1940; Ortenberg, 1990); furthermore, the text we read today is a transcript, dated to the early 11th century, of the original diary (prototext), maybe composed in the same 990 (Magoun, 1940; Ortenberg, 1990). In the first part of the diary, there is a list of the Roman churches visited by Sigeric in two days, according to the text. During the second day, he visited pope John XV and received from him the *pallium*. Then, in the second part, there is a list of stages of his journey back to Canterbury, preceded by this sentence: *Iste sunt submansiones de Roma usque ad mare* (these are the *submansiones* from Rome to the sea).

Here, we have to face our first problem of interpretation: why did the author use the word “*submansiones*” to define the stages of the journey? We have seen above that a *mansion* is an overnight stopping place of the Roman postal system along a road. So, the use of the word “*submansionia*” means that the author knew maybe not the structure of the ancient *cursus publicus* itself, but the meaning of the term in the written itineraries (Corsi, 2002; Patitucci Uggeri, 2004). The addition of the prefix *sub-* could indicate that the list contains not only the overnight stopping places (Stopani, 1988), but also other necessary stages along the road (Patitucci Uggeri, 2004). Another interpretation connects the word with the Latin term *submanentes*, that indicates those who stayed on a land without owning it; so, *submansiones* should indicate places which can offer temporary hospitality (Patitucci Uggeri, 2004).
The list itself presents some interpretative problems: it is composed of 79 numbered stages (they are not 80, because the manuscript passes from number 78 to number 80) starting from Rome and arriving at Sombre (LXXX Sumeran). These are the first stages from Rome (Stubbs, 1874, p. 392):

**Sigeric’s Itinerary (I-V)**

1. Urbs Roma
2. Johannis VIII
3. Bacane
4. Suteria
5. Furcari

We can see that the only information given is the number of the stage and its name. It is not specified the typology of the stages (cities, burgi, etc.) or the distances between them. So, Sigeric’s itinerary gives us less information about the stages if compared to the Roman ones, or even to other medieval itineraries; it is the case of the diary of Nikolas of Munkathvera, in which the author gives information about distances of every place he visited (Magoun, 1944; Stopani, 1988). Even more detailed are the itineraries described in the *Annales Stadenses*: here we find the distances between the stopping places expressed in *miliaria teutonica*, Gallic leagues and Roman miles (Stopani, 1988).

This lack of information does not reduce the importance of Sigeric’s text. It only means that it is not easy to identify correctly the stages he mentions, and the use of other sources to integrate it are often necessary. But the absence of other information could be coherent with the use of the term “*submansiones*”: it could mean that the stages should be all considered of the same importance, as if they were points on a map useful to draw a route.

An interesting aspect of the itinerary is the distance between the stages: if in the sector passing through the Emilia-Romagna region the average distance is 15-20 km (Dall’Aglio, 2002), in Tuscany the average distance is 9-16 km, but for six of them the average is 5-7 km, and for five of them is 20-30 km (Patitucci Uggeri, 2004). If we consider that a pilgrim could cover 20-30 km in a day, we can see that there are stages which are under this parameter; it could mean that the itinerary presents not only the overnight stopping place, but also other stages, like the crossing points on a river (Patitucci Uggeri, 2004).

Furthermore, we do not forget that the text is composed of two parts. It has been demonstrated that the list of Roman churches recorded in the first part of the text is the result of the places that Sigeric chose to visit; so, they represent the most important churches to visit for an Anglo-Saxon pilgrim (Ortenberg, 1990). It does not mean that the list of stages in the second part of the text was influenced by the same criterion, but in some cases, it could have been possible that Sigeric decided to visit holy places particularly important for an Anglo-Saxon pilgrim. For instance, Sigeric’s stage VIII Sce Cristina is connected with St. Christina, a popular saint in England, whose cult had been brought back by pilgrims who stopped at Bolsena, and that is mentioned several times along the Via Francigena (Ortenberg, 1990; Patitucci Uggeri, 2004).
So, the main purpose of the text could be to indicate definitively the sequence of the stopping points of an important route, covered already by pilgrims and followed by others in the future (Szabò, 1996).

4. Sigeric’s itinerary and the Via Francigena

We have already seen that Sigeric’s diary is the first detailed itinerary written during the Middle Ages. But its importance is also due to the route that it describes. In fact, Sigeric’s itinerary is the first written description of a road called “Francigena” or “Romea”. The term “Francigena” is recorded for the first time in the southern Tuscany in 9th century, then it is cited in 11th century in Piedmont and in the Seine region, and from the 12th century is recorded in several Italian regions (Szabó, 1996). But this road was also called strata romea in several documents, both in France and in Northen Italy, and this denomination will be the principal from 15th century (Szabó, 1996).

The road increased its importance in the Lombard period (Dall’Aglio 2002; Patitucci Uggeri, 2004; Stopani, 1988; Stopani, 2015). The Lombards needed to connect their northern duchies with the ones in central Italy, and they had to avoid the territories ruled by the Byzantines. It means they could not use some ancient roads like Via Aurelia, Via Flaminia or Via Cassia (this one was too close to the Byzantine territories).

So, the Lombards were obliged to pass the Apennines just after the city of Piacenza, pointing towards Lucca, which became an important Lombard duchy (Patitucci Uggeri, 2004). After 643, with the loss of Liguria by the Byzantines, the Lombards could use the Cisa pass to cross the Apennines (Dall’Aglio, 2002), and then, from Lucca, the way to south touched Siena, Bolsena and reached Roma following the ancient Via Cassia.

The Lombards built several abbeys along this road, to strengthen their control on it (Kurze, 1998; Stopani, 2010), and during the Carolingian period the Via Francigena increased its important role of way towards Rome (Patitucci Uggeri, 2004; Stopani, 2015). It is important to notice that the path of this road was not entirely created by the Lombards; it certainly followed the path of other minor ancient roads (Szabò, 1996), as topographic studies have proved (Dall’Aglio, 2002). But the decision of the Lombards to enhance the Via Francigena was fundamental for the following development of the road and the territories crossed by it.

It does not mean that the Via Francigena was the only road from Northen Europe to Rome during the Middle Ages. For instance, Nikulas of Munkathverá records three routes towards Rome, Albert of Stade five (Stopani, 1988; Szabò, 1996).

5. A Database for Sigeric’s Itinerary and the Via Francigena

Sigeric’s diary is one of our main source when we talk about the Via Francigena. We have seen how it is composed, its differences if compared to the Roman itineraries, and the kind of information it contains.

Nowadays, thanks to the modern technologies, we can collect all the information we have about the itinerary in a database, which could become a unique tool of study and research. As Sigeric’s itinerary is a source for the reconstruction of the Via Francigena,
we could organise a database dedicated to the medieval road, in which insert a table related to the itinerary. Let us see a proposal for the creation of the database, starting from Sigeric’s diary.

We have seen that the text is divided in two parts; so, we could create two separate tables, one for the Roman churches, the other for the *submansiones.*

We will focus on the latter, but we can briefly suggest that creating a table for the Roman churches visited by Sigeric could be an interesting tool too: every church should have an ID (its unique identification number) based on their citation order in the text; then, adding the geographic coordinate in every record, we could see on a map in which order Sigeric visited the churches, which roads he followed, etc.

The second part of the itinerary can be insert in a table as follow: every record must contain the data related to a specific stage of the itinerary. We have seen that every *submansionio* in the text is numbered, so we can use as ID number of the record the same number chosen by the medieval author (e.g., *I Urbs Roma* will be record 1, *II Iohannis VIII* will be record 2, etc., *Figure 2*).

What kind of fields do we need in our table (*Figure 3*)? The purpose is to collect information about the *submansiones,* but we also need to use them in a geographic context, which means insert them in a GIS software. So, we will have a field “Name”, in which is contained the name of the stage according to the itinerary; then, a field “Description”, in which are summed up briefly all the information we have about the *submansionio*; a field “Typology”, where are inserted the classification of the stage (we will discuss this point below); a checkbox “Archaeological remains” and a field “Archaeological remains description”, in which are described the archaeological evidences of the stage (we have used a checkbox for this reason: if there are archaeological remains related to the stage, it is possible to click the checkbox and enable the text field); a field “Location”, where is specified if the position of a stage is certain (we know the exact position), certain areal (we know the area where the stage was, but not its exact position), uncertain (we don’t know neither the exact position nor the areal); two fields “X” and “Y”, where are added the geographical coordinates of the *submansionio* (we have used the WGS84 reference system); finally, a field “Bibliography”, in which are inserted all the text which mention the *submansionio* (in our database, we should create a table containing all the information about bibliography).

These are just basic fields, useful to create the starting point of our database. During the research, if we should need other kinds of data about the stages, we could easily add other fields.
6. Typology of the stages: Sigeric’s Itinerary in Tuscany and Lazio Region

Let us see how to use the database with a concrete example: we will focus on Sigeric’s stages located in Tuscany and Lazio Region. The choice is due to the existence of several topographical studies related to this section of the Via Francigena, but also because of the number of stages involved (32 out of 79), which represents a good sample to analyse.

One of the most important element of the table we have created is the field “Typology”. In fact, we know that the author of the medieval itinerary uses the term *submansiones* to define all the stages, without other specifications. So, we can insert in our table all the data about them, pass it in a GIS software and realise a map of the Sigeric’s itinerary; in our map, we will see the track of the road and the *submansiones*, without distinctions between them (*Figure 4*). We could say that this is the most “philological” cartographic representation of the itinerary. But we must try to understand what else the text can tell us, always remembering that this kind of documents were written with a clear purpose, and we cannot ask them what they cannot say (Uggeri, 2000).

![Figure 3. Form of the table dedicated to Sigeric’s Itinerary](image)
First of all, let us see the 32 stages of Sigeric’s itinerary related to Tuscany and Lazio region, to understand the information we know about them (we have only indicated the name of the most important cities, like Lucca or Siena, without a description):

1. **Urbs Roma**.
2. **Iohannis VIII**. Settlement around the 9th milestone of the Via Cassia, recorded as *burgus*, while at present is called “La Storta” (Wickham, 1978; Ortenberg, 1990, Patitucci Uggeri, 2004; Isola Farnese in Corsi, 2002).
3. **Bacane**. It was the Roman road-station *Baccanae*, in use until the 5th century, then *burgus* in the early Middle Ages, associated with St. Alexander from the 3rd century. (Corsi, 2002; Wickham, 1978; Ortenberg, 1990, Patitucci Uggeri, 2004; Stopani, 1997).
4. **Suteria**. Settlement founded by the Etruscans, diocese from the 4th century. It is called *civitas* in 1081 (Corsi, 2002; Ortenberg, 1990; Patitucci Uggeri, 2004; Stopani, 1997).
5. **Furcari**. It is recorded as *massa* in the 9th century. The church of St. Maria in Forcassi replaced the Roman stopping-point of *Forum Cassii* (Corsi, 2002; Patitucci Uggeri, 2004; Ortenberg, 1990; Stopani, 1997).
6. **Sce Valentine. Burgus Sancti Valentini**, recorded for the first time in 788. A church was built on the place of the martyrdom of St. Hilary and St. Valentine, who were venerated here (Corsi, 2002; Patitucci Uggeri, 2004; Stopani, 1997; Viterbo according to Ortenberg 1990).

7. **Sce Flaviane.** Montefiascone. The church of St. Flavianus, originally St. Mary, with its *burgus* is mentioned in a papal bull by Leo IV at the half of the 9th century (Corsi, 2002; Ortenberg, 1990, Patitucci Uggeri, 2004; Stopani, 1997).

8. **Sca Cristina.** Bolsena. The *burgus* was named after a martyr of the time of Diocletian, whose tomb was venerated here (Corsi, 2002; Ortenberg, 1990; Patitucci Uggeri, 2004; Stopani, 1997).

9. **Aquapendente.** Settlement which is called *Burgus Arisa* in medieval documents between 8th and 9th century. Its urban development is due to the Via Francigena (Corsi 2002; Patitucci Uggeri, 2004, Settia 1984)

10. **Sce Petir in Pail.** A disappeared monastery, part of a settlement called *Palia*. The settlement is defined *curtis* in 995 and *burgus* in the 11th century. The monastery has been identified on a crossing point of the Paglia river, between the Mount Amiata and Radicoefani, in a place called today Voltole (Corsi, 2002, Patitucci Uggeri, 2004, Stopani, 1997).

11. **Abricula.** “Le Briccole”, hospice cited from medieval sources since the 8th century. Here there was also a church dedicated to St. Peregrine (Ortenberg, 1990; Patitucci Uggeri, 2004, Stopani, 1997).

12. **Sce Quiric.** A *pieve* dedicated to S. Quirico, at present included in the little town of S. Quirico d’Orcia (Ortenberg, 1990; Patitucci Uggeri, 2004, Stopani, 1997).

13. **Turreiner.** Today is the little town of Torrenieri. It was a settlement with a tower, a *pieve* and a hospice. It is recorded as a castle in the 13th century, while it is not known how the settlement was organised at the end of the 10th century (Hobart, Campana & Hodges, 2012; Ortenberg 1990; Patitucci Uggeri, 2004, Stopani, 1997).


15. **Seocrine.** Siena.

16. **Burgenove.** This *burgus* is difficult to identify, but according to medieval documents it should have been around Abbadia a Isola (Ortenberg, 1990; Patitucci Uggeri, 2004, Stopani, 1997).

17. **Aelse.** A crossing point on the Elsa river, maybe at the confluence with its tributary Botro degli Strulli (Ortenberg 1990; Patitucci Uggeri, 2004, Stopani, 1997).

18. **Sce Martin in Fosse.** It is not possible to identify this settlement: *Fusci* is recorded by medieval documents in 996, and it had two churches, St. Martin and St. Stephan. Maybe St. Martin was placed near Campiglia dei Foci, around Mulino d’Aiano (Ortenberg 1990; Patitucci Uggeri, 2004, Stopani, 1997).

19. **Sce Gemiane.** S. Gimignano. It is recorded as *Burgus* in 950, and at the end of the 10th as a *castrum* (Augenti, 2000b; Ortenberg 1990; Patitucci Uggeri, 2004, Stopani, 1997).


22. *Sce Dionisii*. The settlement was known as *Vicus Wallari* during the Lombard period (probably it was founded in the 6th century), while an *ecclesia sancti Genesi* is recorded in the 8th century (*pieve* in 763). At the end of the 10th century, after the reconstruction of the church decided by the bishop of Lucca, the settlement was called *burgus St. Genesius*. It was destroyed in 1248 by San Miniato (Cantini, 2012; Ortenberg 1990; Patitucci Uggeri, 2004, Stopani, 1997).

23. *Arne Blanca*. A crossing point on the Arno river, difficult to identify. The medieval author uses the adjective “blanca”, probably to identify the running water of the river, in contrast with the following stage, *Aqua nigra* (Patitucci Uggeri, 2004, Stopani, 1997).

24. *Aqua nigra*. A crossing point on the Usciana stream. It is called “Nigra” because its water came from an area of marsh. This crossing point was maybe located at Cappiano (Patitucci Uggeri, 2004, Stopani, 1997).

25. *Forcri*. Porcari. It is recorded in the sources as castrum in the 11th century, but probably at the end of the 10th century it was still a *vicus* (Ortenberg, 1990; Patitucci Uggeri, 2004, Stopani 1997; Stopani 2015.).


30. *Aguilla*. *Castellum Aulla* is mentioned in 884, and it was a fortified settlement along the Via Francigena (Augenti, 2000a; Ortenberg, 1990; Patitucci Uggeri, 2004; Settia, 1984; Stopani, 1997).


As we can see, Sigeric visited cities and monasteries, *burgi* and *vici*, urban and rural settlements. However, it is not always easy to choose a typology for each stage. We have made an attempt, adding the information about the different settlements in the field “Typology” of our table; after the analysis of all the stages mentioned in the itinerary, and the detailed study of the first 32 stopping point we have seen above, we can classify the settlements in these categories: city, *burgus, castrum, vicus* and minor settlement, hospice, *pieve*, monastery, church, crossing point on river.

**City**

One of the most complex historical and archaeological discussion of the last decades has been the one related to the definition of the terms “city” and “town” in the Early Middle Ages (Ward Perkins, 1996; Brogiolo 1999; Brogiolo, Gauthier & Christie, 2000). In Sigeric’s itinerary we find different kinds of urban settlement: we have one of the most important city of western Europe, Rome (*Urbs Roma*), but Roman cities survived...
in the Middle Ages, like Piacenza (XXXVIII Placentia) or Lucca (XXVI Luca), and others in decay, like Luni (XXVIII Luna) are also mentioned. Then we have the case of smaller settlement of ancient origin, which are recorded as seat of a bishopric during the Early Middle Ages, like Siena (XV Seocine) or Sutri (III Sutoria), that will have an important urban development in the following centuries. Is it possible to consider as “cities” all of them? In Roman and early medieval period, cities and towns were defined in administrative terms: the most important criterion was not their size, but the presence of the seat of a bishopric or of a secular administration (Ward Perkins, 1996). Contemporary sources tell us that most ancient civitates survived in Early Middle Ages, but we do not know how many people lived in them, and how they looked like. In some cases, they could have looked like churches and comital residences, rather than “towns” (Ward Perkins, 1996). If we have difficulties to classify human settlements in the early medieval period, the contemporary observers had difficulties too: they lived a moment of transition between a “city of monuments” of the Roman period to a medieval city whose landmarks were different (churches, episcopal buildings, monasteries, etc) (Brogiolo, 1999). We know that in northern Italy the 10th century was a moment of development for both the ancient cities and the new foundations (Cirelli, 2013); however, it is not easy to understand the main characters of these cities before the 11th century, as it has been demonstrated in the case of Siena (Cantini, 2011). So, in our case, we have decided to classify as “cities” all the urban settlement that the sources recorded as seat of a bishopric, or which are called civitas, even if they could appear different from one another, because of their history or their size.

Burgus

Another interesting kind of settlement mentioned in the itinerary is the one that other medieval sources call burgus; for instance, Johannis VIII (II), See Valentine (VI), See Flaviane (VII), Burgenove (XVI), See Martine in Fosse (XVIII). The word burgus was used in the Roman period with the meaning of “little castle”. In the early Middle Ages, the word was still used in the Germanic context to indicate a fortified settlement, while in the Romance-speaking Europe it was used with the meaning of “agglomerated settlement”. In this case, it was used to indicate the suburb of a city outside the wall, or a settlement connected to a castle or a church, and sometimes an isolated rural settlement (Settia, 1984). It is something different from a castrum (castle) or a vicus (village), and its more suitable definition is: unfortified small settlement, densely populated and organised as a city (Settia, 1984). At the end of the 10th century, from France the word reached Italy and Spain, even if we know that in Italy it was used before. The Via Francigena had a primary role in the spread of the term: in fact, at the end of 9th century it is recorded Borgo San Donnino (Fidenza, Sigeric’s XXXVI Sce Domnine), while in 909 it is mentioned Burgus Arisa, Sigeric’s stage VII Sce Flaviane (Montefiasco) (Settia, 1984). It is possible to say that because of the Via Francigena, the road which came from France, the term was used both in Italy and France since 9th century (Settia, 1984). In the 11th century the burgi increased in their number, not only on the Via Francigena, but also in northern Italy, and the growth continued in the 12th and 13th century.


**Castrum**

A *castrum* was an intensely concentrated settlement on fortified hilltop, whose number increased in the 10th century during the so-called “incastellamento” (Augenti, 2000a; Toubert, 1973; Valenti, 2012; Wickham, 1985). This phenomenon transformed the countryside, as it has been studied also from an archaeological point of view in Tuscany (Valenti, 2012). In many cases, a *castrum* was not a new foundation, but it was the result of the development of a precedent settlement. In Sigeric’s diary we have the example of S. Gimignano (XIX *Sce Gemiane*), which is recorded as *burgus* in 950, but it is called *castrum* in 998 (Augenti, 2000b). Along the Via Francigena we also have a *castrum* referred to the 9th century, Aulla (XXX *Aguilla*), which was a fortified settlement with a church and a hospice (Augenti, 2000b; Settia 1984).

**Vicus**

Since the 8th and 9th century the most common rural settlement was the *vicus*, which was constituted by a group of houses surrounded by farmlands (Settia, 2012). Sometimes, it was connected with a church, which was inside the *vicus* or in its surroundings. The main difference between a *vicus* and a *burgus* was the distribution of the houses: in a *burgus* they were gathered together, while in a *vicus* they were not. A *vicus* was probably Sigeric’s stage Porcari (XXV *Forcri*).

**Pieve**

Another important element of the medieval countryside were the ecclesiastic districts called *pievi*, whose centre were the baptismal churches, called themselves *pievi*. This kind of ecclesiastical organisation was typical of the 9th and the 10th century (Violante, 1985; Ronzani, 2009), and we have several examples of them mentioned in the Sigeric’s itinerary, like S. Maria at Chianni (XX *Sce Maria Glan.*) or S. Pietro at Coiano (XXI *Sce Peter Currant*). A *pieve* sometimes could offer accommodation to the pilgrims (Stopani, 2015).

**Hospice**

Pilgrims needed places to stay and rest on the road, possibly not too expensive. For those who could spend money, it is recorded the existence of inns, but most of the pilgrims should rely on charity, and were hosted in *hospitalia*, whose main purpose was to offer food and bed to the pilgrims (Birch, 2000; Stopani, 1997). Sigeric’s stage Abricula (XI) was an important hospice in the Middle Ages.

**Monasteries and churches**

Monasteries were obliged by St. Benedict’s Rule to offer shelter and food to the pilgrims (Birch, 2000). In some cases, they had separate buildings where hosting them, in order to not disturb the daily routine of the monks. In Sigeric’s diary we have the monastery of St. Peter in Paglia (X *Sce Petir in Pail.*) and St. Benedict at Montelungo (XXXII *Sce Benedicte*). Even bishops and priests were obliged to host the pilgrims (Birch, 2000). The stage V Furcari is a church, built on the surrounding of a roman station on the Via Cassia (Corsi, 2002).
Crossing point on a river

One of the main issues for a pilgrim was the crossing of a river. In Sigeric’s itinerary are recorded several settlements located by a river, but sometimes, for instance the stages XXIII Arne Blanca and XXIV Aqua Nigra, the medieval author seems to refer to the crossing point itself or to a bridge, rather than to a settlement (Patitucci Uggeri, 2004). For these kind of stages, we have chosen the typology “crossing point on a river”.

After the classification of the 32 stages, we can sum up the situation as follow (Table 1): we have 10 burgi, 5 cities, 4 crossing points on a river, 3 monasteries, 3 pievi, 3 vici or minor settlements, 2 castra, one church and one hospice.

Table 1. Number of stages for each typology, referred to 32 Sigeric’s submansiones, from Rome (I Urbs Roma) to Montelungo (XXXII Sce Benedicte)

<table>
<thead>
<tr>
<th>Stage typology</th>
<th>Number of stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burgus</td>
<td>10</td>
</tr>
<tr>
<td>City</td>
<td>5</td>
</tr>
<tr>
<td>Crossing point on a river</td>
<td>4</td>
</tr>
<tr>
<td>Monastery</td>
<td>3</td>
</tr>
<tr>
<td>Pieve</td>
<td>3</td>
</tr>
<tr>
<td>Vicus/Minor settlement</td>
<td>3</td>
</tr>
<tr>
<td>Castrum</td>
<td>2</td>
</tr>
<tr>
<td>Church</td>
<td>1</td>
</tr>
<tr>
<td>Hospice</td>
<td>1</td>
</tr>
</tbody>
</table>

The most frequent settlement on this sector of the Via Francigena seems to be the burgus, which is represented by 10 stages (31% out of the total), followed by cities (16%) and crossing points on a river (13%) (Figure 5). These figures seem to confirm the role of the road for the development of the burgi in central and northern Italy (Settia, 1984), and the importance of the rivers in Sigeric’s Itinerary (Patitucci Uggeri, 2004).
7. Sigeric’s Itinerary and the GIS

The creation of a database related to Sigeric’s itinerary would be an important starting point to collect information about the stages and the Via Francigena. The next step should be to insert our database in a GIS software, to improve our historical and archaeological knowledge of the road. In fact, to define the path of a medieval route it is essential to use different kind of sources, like the written itineraries, the archaeological and material remains referred to the route, the geomorphological context, the toponymy. All this information can be inserted in a GIS software, to use it to answer to historical, archaeological and topographical questions (Patitucci & Uggeri, 2007).

In our case, we have inserted in our GIS project the database with Sigeric’s itinerary, and the path of the Via Francigena, as defined in the most recent topographical studies (Corsi, 2002; Dall’Aglio, 2002; Patitucci Uggeri, 2004; Stopani, 1997). We can consider the Via Francigena from different point of view: on a small scale, we can see how the road crossed medieval Europe at the end of the 10th century (Figure 6); on a large scale, we can understand the impact of the road on a specific territory. For instance, we can try to understand what kind of settlements a medieval pilgrim could have visited during his journey. So, thanks to the field “Typology” created in our database, we can see the classification of Sigeric’s stages on a map (Figures 7, 8, 9). Furthermore, we know that Sigeric came from Anglo-Saxon England, and at present archaeological research is starting to understand the characteristics of Anglo-Saxon settlements (Hamerow, 2012); so, it would be interesting to understand the differences between what an Anglo-Saxon pilgrim was used to see in his country, and what he could have seen during his journey.

Figure 5. Typology of the stages: percentages related to 32 Sigeric’s submansiones, from Rome (I Urbis Roma) to Montelungo (XXXII Sce Benedicte)
Figure 6. Europe and The Via Francigena at the end of the 10th century (the layer related to the European Kingdoms is taken from The Digital Atlas of Roman and Medieval Civilizations (DARMC) realised by Harvard University)

Figure 7. Thematic map of Sigeric’s *submansiones*, from Rome (*Urbs Roma*) to Montelungo (XXXII Sce Benedicte)
Figure 8. Thematic map of Sigeric’s *submansiones*, from Rome (I Urbs Roma) to Arbia river (XIV Arbia)

Figure 9. Thematic map of Sigeric’s *submansiones*, from Siena (XV Seocine) to Montelungo (XXXII Sce Benefidce)
But every single stage we have analysed could be the starting point of a topographical and historical research on a large scale: how the medieval road changed the landscape? Why some settlements disappeared, while other became increasingly important? How was the Sigeric’s stage inserted in the medieval territorial context? However, we have to underline that while the Italian sector of the road has been studied and analysed in the recent years, while the other sectors are not so well known. In fact, it would be important to study the list of stages as a whole, in order to understand how it is structured.

A GIS software could be a fundamental tool to understand the road in its entire length: in fact, if we will add the stages of the French sector in our database, we will be able to calculate the overall length of the road and the average distance between stages, in order to have a complete vision of the places visited by Sigeric. Then, adding all the information about the medieval period (roads, cities, abbeys, etc), we will have the possibility of understanding the role of the Via Francigena in medieval Europe.

**Conclusion**

Sigeric’s journey ended more than one thousand years ago, but the possibility of following his steps has made his experience still interesting for the contemporary research.

The proposal of creating a database and a GIS project related to Via Francigena and Sigeric’s itinerary is a starting point, useful to understand how modern technologies could help us in the field of historical and topographical research.

We have focused our attention on the end of the 10th century, when Sigeric made his journey, but the further development of the Via Francigena, the other paths and the other stages can be inserted too in our database. At the same time, sources like the diary of Nikulas of Munkathverâ could be integrated in the project, in order to have a complete archive of the sources related to the Via Francigena.

In conclusion, we can notice that Sigeric’s diary could be considered as a photograph of a changing world: from one side, we have Roman cities in decay that are still mentioned, from the other, there are minor settlements that will become important towns in the Middle Ages, thanks to the importance of the Via Francigena.

And then, there are castle and villages, monasteries and *pievi*; some of them are disappeared, others are still existing. Thanks to modern technologies, we can highlight the reasons behind these changing, and try to understand in a better way the history of our territories.
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