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PROPOSALS FOR AN ARCHAEOLOGICAL ANALYSIS OF PATHWAYS AND MOVEMENT

1. Introduction and case study[1]

Archaeological analysis of movement already has a rather long history, especially when applied to prehistoric contexts, or those generally lacking direct, material indicators of its concrete forms (pathways). The basis for such analysis usually lies in the consideration of the influence of the physical factors on movement, and in the relation between those factors and specific pieces of the archaeological record (monuments, settlements). All in all, approaches like these have been unevenly applied to different geographic areas and prehistoric periods. As an example, and to cite the casestudy that we will focus on here (the Iron Age in the NW Iberian Peninsula), the analysis of movement and pathways has not been taken into consideration as a relevant question for settlement and territorial patterns, based so far upon different criteria, either productive (land productivity) or strategic (Carballo 1990; Martins 1990; Parcero 2000; Almeida 2003; Fábrega 2004). One must draw a distinction between the importance given to movement as an explanatory factor for other periods in the same area (Infante *et al.* 1992; Villoch 1995) or for the same period in other areas (Madry, Crumley 1990; Madry, Rakos 1996; Grau 2002).

On the other hand, the analysis of historical networks of paths and roads is also a widely developed field, although based on different procedures. In these cases, movement is only a secondary factor of the positive existence of material remains of actual pathways (for the same geographic area, well known examples are those of Ferreira 1988 or Nárdiz 1992). Perhaps the place where both approaches have been more systematically applied is that of Roman roads, where a partial – though usually large – amount of direct evidence (both archaeological and documentary) is complemented by the interest in the reconstruction of the concrete course of the roads. However, the consideration of the present day network of paths and roads as a set of material historical objects, capable of being analyzed from an archaeological perspective (or better, as Vicent 1991 suggests, archaeo-geographical) is by no means usual.

[1] This paper is a result of the Project "Autopista al pasado: investigación y protección del patrimonio arqueológico en un proyecto de obra pública (ACEGA D+I)", PGIDIT04CCP606003PR. Plan Galego de I+D+I 2002-2005, Secretaría Xeral de Investigación e Desenvolvemento, Xunta de Galicia.

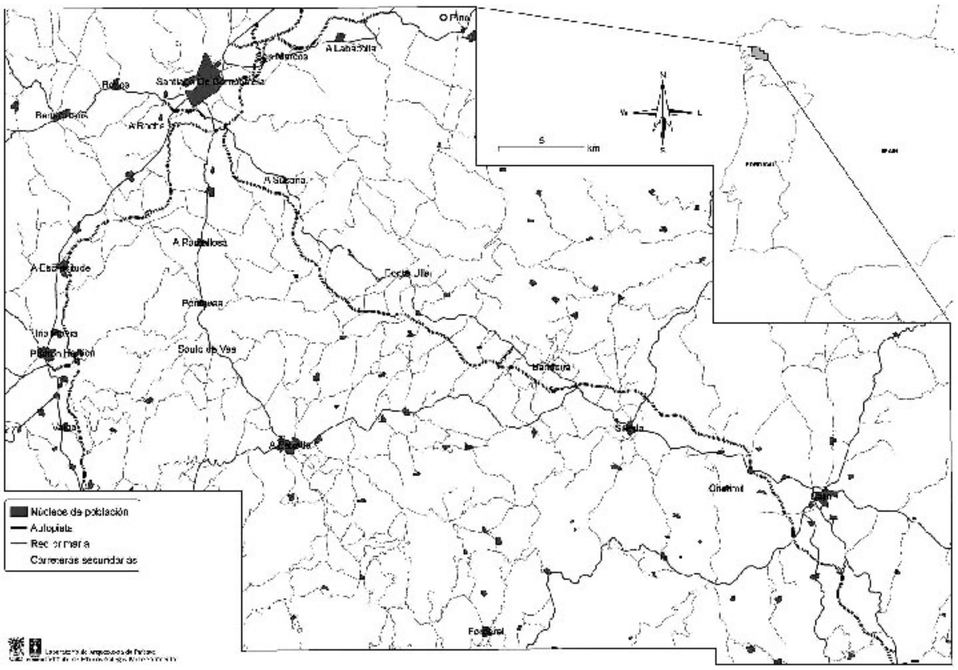

Fig. 1 – Existing settlements and roads in the study area.

In this text we will try to summarize some of the approaches we have recently used for an analysis of the forms of movement on the territory and their relation with different forms of historic and prehistoric settlement. This study was made possible thanks to our involvement in a research project linked to the analysis of the information documented after the archaeological assessment of a new 60 km motorway (called Acega) in Galicia (NW of the Iberian Peninsula). The text has been conceived basically from a methodological point of view, and references to the historical transformations of movement and settlement in that area are to be considered as a case study and an illustration of the procedures presented. However, it should also be noted that we do not intend to put forward a full and comprehensive methodology for the archaeological analysis of the relationship between movement and settlement, but just some proposals that, based on an intense use of digital tools, can contribute to broadening the context in which these questions are considered.

The historical problem that we faced in the beginning can be described as follows: the analysis of the **cumulative process** that has been forming a dense network of roads and pathways in the area depicted in Fig. 1 (the districts of Santiago, Tabeirós and Deza), but this must be detailed a bit. Today, in that area we find a series of primary roads, those that link together five main towns and villages: Santiago de Compostela, Lalín, A Estrada, Padrón and Forcarei. Of these, two are remarkable for their historical importance: the one between Santiago and Lalín (part of a major road linking Santiago and Ourense), and the one between Santiago and Padrón, to the West, that is part of the major N-S axis of movement and population between the cities of Coruña and Vigo.

This network has been created through time by different roads and paths, either totally lost, partially preserved or still in use. A diverse set of settlements has developed around the network, even with a clear relation to each other in some cases. What we propose is to gradually split up the complex set of points and lines composed by the existing settlements and roads, to analyze the way in which they were formed historically and to explore their likely relations of mutual dependence; in other words, to develop methodological procedures to model the historical evolution of movement through a given geographic space.

2. Methodology and analytical process

The process we have followed combines two complementary sources of information. On one hand, we have a large quantity of evidence that can be defined as historical. We do not mean just the material elements in the area in some way linked to movement (such as bridges, ancient roads, etc.), or the historical written sources, but also the existing network of settlements and roads, as long as they are the result of historical processes and, as such, part of the record themselves. We have used different documents for the inventory of these sources: the existing settlements and roads have been taken from different series of digital maps, from both the official Spanish and Galician Cartographic Services[2]. The inventory of historical sources and monuments has been taken basically from Ferreira 1988, Nárdiz 1992 and Rodríguez Colmenero *et al.* 2004.

On the other hand, we must consider the non-cultural conditions for movement and settlement, the group of physical factors that, to a greater or lesser extent, influence the forms of land occupation and appropriation. The analysis of the relationship between physical conditions and movement represents a question that has been dealt with for a long time in geography (see for instance Tobler 1993), and which has greatly benefited from the incorporation of digital tools like GIS. The way in which natural conditions influence movement is arguable but it is not too risky to consider that both terrain (slope and aspect) and water courses are the most influential. In order

[2] The 1:5.000 digital maps of the area have been kindly provided by the Dirección Xeral de Urbanismo, Consellería de Obras Públicas, Xunta de Galicia.

to incorporate them into the analysis, we have built a 25-meter resolution Digital Elevation Model[3].

The topographic model allowed us to handle the two aforementioned factors. Firstly, we have obtained a cumulative hydrographical network: that is, a representation of the watercourses in the area from the modelling of the drainage system. The result was a hierarchical flow model, typically useful to assess the "barrier value" of any given river (as for instance in PARCERO 2000); in general, we can assume that the larger the basin, the greater the accumulated flow and, therefore, the greater the cost to cross it. However, that statement must be refined, especially since different possible ways of crossing a water course (fords, boats, bridges, etc.) are influenced in different ways by different physical factors, not only by water flow and volume. Therefore, we have considered that accumulated flow is not fully representative, and we decided to use the hydrographical network in a different way: only to exclude those areas from the analysis, to ensure that optimal paths will not run over them (which happens quite frequently, since they are usually gently sloped lines).

The second indicator is slope. It can be assumed that the higher the slope, the greater the cost to move over it, but that can also be refined. There are a number of proposals to deal with the influence of slope over movement, to transform slope values (degrees or %) into cost units. We have empirically compared the usefulness of two well-known algorithms, those proposed by TOBLER 1993 and BELL, LOCK 2000. A comparative analysis that explores their different accuracy in a concrete case study is one of the methodological aims of our work.

However, from our point of view, those approaches are only partial, since they do not suitably solve the physical representation of movement: they are based on a static assumption, a cost value is assigned to every single position of an area according to the slope value, disregarding the location of the origin and destination points. Considering its dynamic character, movement has two main components: orientation and direction, which directly influence cost. The effect of orientation on cost has been considered; indeed, the difference between ascending and descending is quite obvious. The so-called anisotropic algorithms incorporate that difference (some GIS packages already allow their use; authors as LLOBERA 2000 or VAN LEUSEN 2002 have supported their use). However, we have decided here to consider orientation as an isotropic element, since the paths we are focusing on do not have a prevalent way (additionally we could add the weak asymmetry of anisotropic functions, as

[3] Part of the DEM comes from the official IGN MDE25, while the rest has been done after digitizing contour levels of 1:25.000 maps. Digital processing and the elaboration and combination of models have been done by Paula Méndez Santiago, who also made the basic digital processing of the remaining data used here.

Marbel points out, in van Leusen 2002: 6-7)[4]. It is also true that, theoretically, two way optimal paths over a given surface could follow different trajectories, but in practice movement must be considered as a cumulative action, where a first act (one way) influences a second (return), both for cultural and practical reasons: for instance, when moving over an area with dense vegetation, the path initially followed causes a direct effect on the land (clearance) that facilitates the return, even if a most suitable return way exists under purely topographic criteria.

But movement is not only conditioned by orientation. For instance, the angle at which a sloped terrain is crossed has also a direct effect on cost (it can be crossed perpendicularly or tangentially). This can be better understood when watching phenomena such as a road leading to a summit, or the trajectories of animals when climbing up a steep sloped terrain. In both cases, the direction of movement avoids the line of maximum cost, and movement follows a zigzag shape. We have called that factor direction, and it has also been incorporated into our analysis.

How did we use them? Both orientation and direction can be approached from what is called the terrain aspect, which is easy to calculate from a DEM. The mathematical procedure to model those factors is rather complex and it will not be described in detail here (further details on Parcero, Fábrega 2006; Fábrega 2006). The result is a series of algorithms that can be combined, and that allowed us to determine optimal paths between two points, as well as to propose further developments such as the one we labelled MADO (Spanish acronym for "Optimal accumulation model of movement from a given origin", developed in Fábrega 2006). MADO can be briefly defined as the representation of an accumulation model of lowest cost movement calculated from a given origin and without specific destination points. Since destination points are not taken into account for the calculation, and given a suite of origin points in an area, this can be a good way to analyze the arrangement of optimal routes starting from every individual point, and exploring to what extent these routes are linking points into a pathway network. It may also be useful to compare the reliance of "optimal pathways" between two previously defined points.

All of the above illustrates the complexity of the processes of simulation (representation) of human movement. Without a computerized mathematical model, we would not have been able to integrate every factor and to evaluate their influence. Even so, and beyond the criticism that can be directed to

[4] Furthermore, this means we have done an isotropic use of Tobler's algorithm (cost values for ascending slopes), originally conceived as anisotropic. A different isotropic use of anisotropic algorithms could be done by calculating the average values between positive (ascending) and negative (descending) results, which allows us to compose a table with a correspondence of values (cost-slope) that can be used with some GIS software tools, as ArcGIS.

our model of physical factors, we must remember that movement is a highly complex question, that cannot be explained only in terms of cost. Movement and its material effects, pathways, do not exist randomly, but for the need to appropriate and move across a given territory, allowing the physical communication between specific points. The question that we will deal with now is to explore the way in which those general physical factors are related with concrete, historical forms of movement, represented by what we have called cultural elements, both material (archaeological) and documentary.

These elements form a rather wide range: settlements, bridges, place names, historical and existing roads and paths, or "markers" (we have labelled as such a number of minor, non-structural material elements linked to paths and roads, like milestones or crosses). Some of them can be assigned to a specific period or date, following either documentary data or formal criteria, but some simply cannot. We must state that the chronological adscription is often hypothetical, and usually made only at the period level; for instance, the historical use or origin of some bridges can be traced back with the aid of documents or epigraphs. However, they can be preceded by the existence of fords (some examples are quoted in Ferreira 1988), as is also usual in the case of paths or roads that are formed over previous routes. That exemplifies the theoretical consideration of movement as a cumulative process, especially where reuse happens frequently.

Consequently, what we will do is to use concrete cultural elements as reference points, nodes, from which we will estimate optimal paths (considering the physical factors) that will be compared to concrete pathways and roads, in order to determine the relevancy of every node. In this way, we should be able to approach the locational link between routes and material indicators. Following that procedure in a retrospective way, we will try to illustrate the applicability of the procedure for this case study and to come close to an interpretation of the evolution of movement from the present day to the late prehistory in the study area.

3. Application and results

Considering the formal account of the historical problem previously presented, our first step has been to explore the theoretical aptitude for movement between the most remarkable present day towns: Santiago, Lalín, Padrón, A Estrada and Forcarei (Fig. 1). As we have said, the point here is to start exploring to what extent the topographic conditions have influence over movement in general terms, and to determine the optimal routes (in terms of cost) to connect those places. The result of that analysis (Fig. 2) shows, firstly, the different results provided by the two algorithms employed, especially obvious in some areas but not so much in others, which suggests that

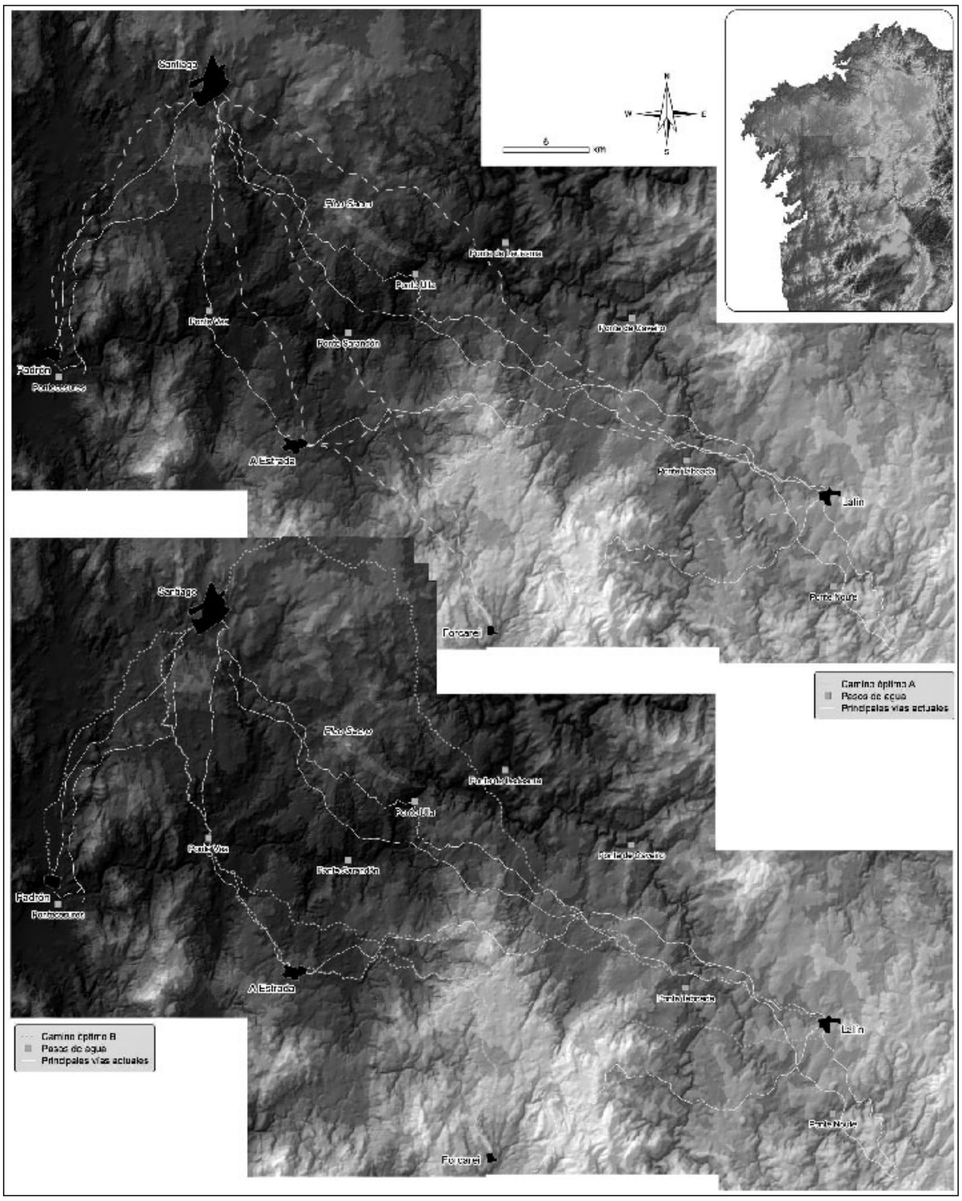

Fig. 2 – Optimal routes between the main towns, according to TOBLER 1993 (A) and BELL, LOCK 2000 (B) algorithms.

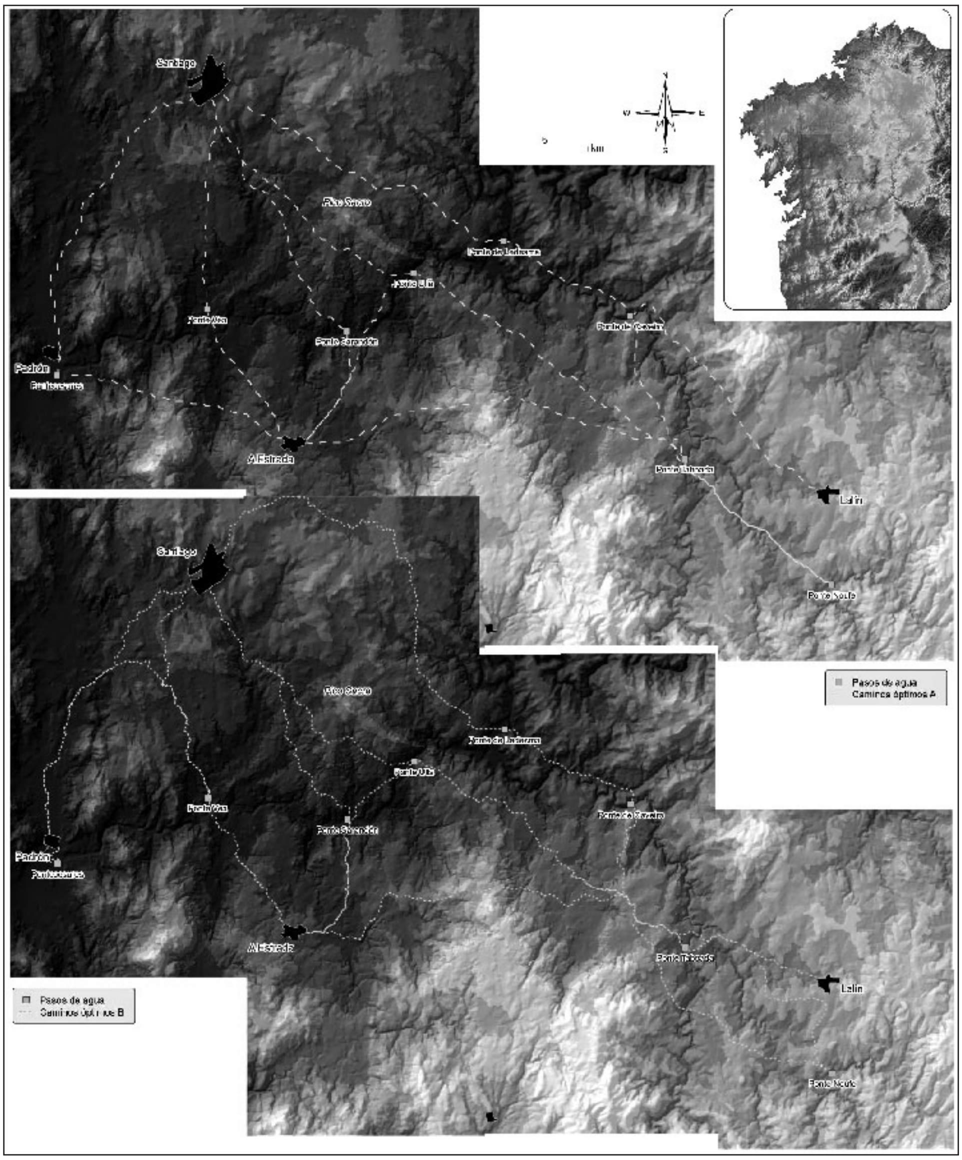

Fig. 3 – Optimal routes between the main towns and the points for river crossing, according to Tobler 1993 (A) and Bell, Lock 2000 (B) algorithms.

the latter could perform as strong natural "low cost" areas. That is reinforced once we compare both results to the existing roads, especially the principal ones. Obviously, none of them is fully coincident with the lowest cost paths, which is perfectly normal since every road or track is, above all, a material result of historical processes. That could be easily supposed in advance. The best example is the strong contrast between optimal paths and motorways, that are built avoiding coincidence with the more densely occupied areas and that are benefited by a technology that allows us to be largely unaware of the terrain conditions.

But we also find two important questions. Firstly, in those areas where the two optimal routes are coincident, we can see how the actual roads are also very close to them: see for instance the vicinity of Ponte Taboada and Lalín, or, in broader terms, the first half of the roads between A Estrada-Lalín and Santiago-Padrón. Secondly, it is both surprising and intriguing to discover that almost none of the optimal routes cross the main rivers (Ulla and Deza) where the actual roads do (furthermore, the present day bridges are usually medieval in origin). The only exceptions are Pontecesures (which, in any case, is so close to one of the nodes of the analysis – Padrón – that it could hardly be far from the optimal routes) and, in the A example, Ponte Vea. The case of Ponte Taboada is especially noteworthy, where both routes (A and B) and the actual road fit perfectly close together, but far from the location of the medieval bridge of Ponte Taboada, 1 km to the SW (we will come back to this later on).

We could propose a first hypothesis from here: that the main crossing points of the rivers are also key nodes for the arrangement of the actual road network, at the same level as the towns and, since they have been documented since the Middle Ages, they would also have operated in the same way in pre-modern times. So let us explore how the optimal paths are modified if we force them to pass through those points. The result (Fig. 3) shows a significantly different network of optimal routes, to a great extent similar to the actual roads[5]. Some of the differences noted between the two algorithms are still documented, and even increased in some cases (paths between Ponte Ledesma-Santiago, A Estrada-Padrón or Ponte Caaveiro-Ponte Noufe). But we can also observe that the main part of the crossing points of the rivers (especially Ponte Vea and Ponte Ulla) are not only key positions for the understanding of the existing road network, but also crucial points to articulate movement on the whole: once incorporated into the analysis, the optimal routes get a more structured and converging form.

[5] Forcarei has been discarded for two reasons: its peripheral position within the study area and its significantly lower size and relevance, being more directly focused to the Lerez valley (South of the study area).

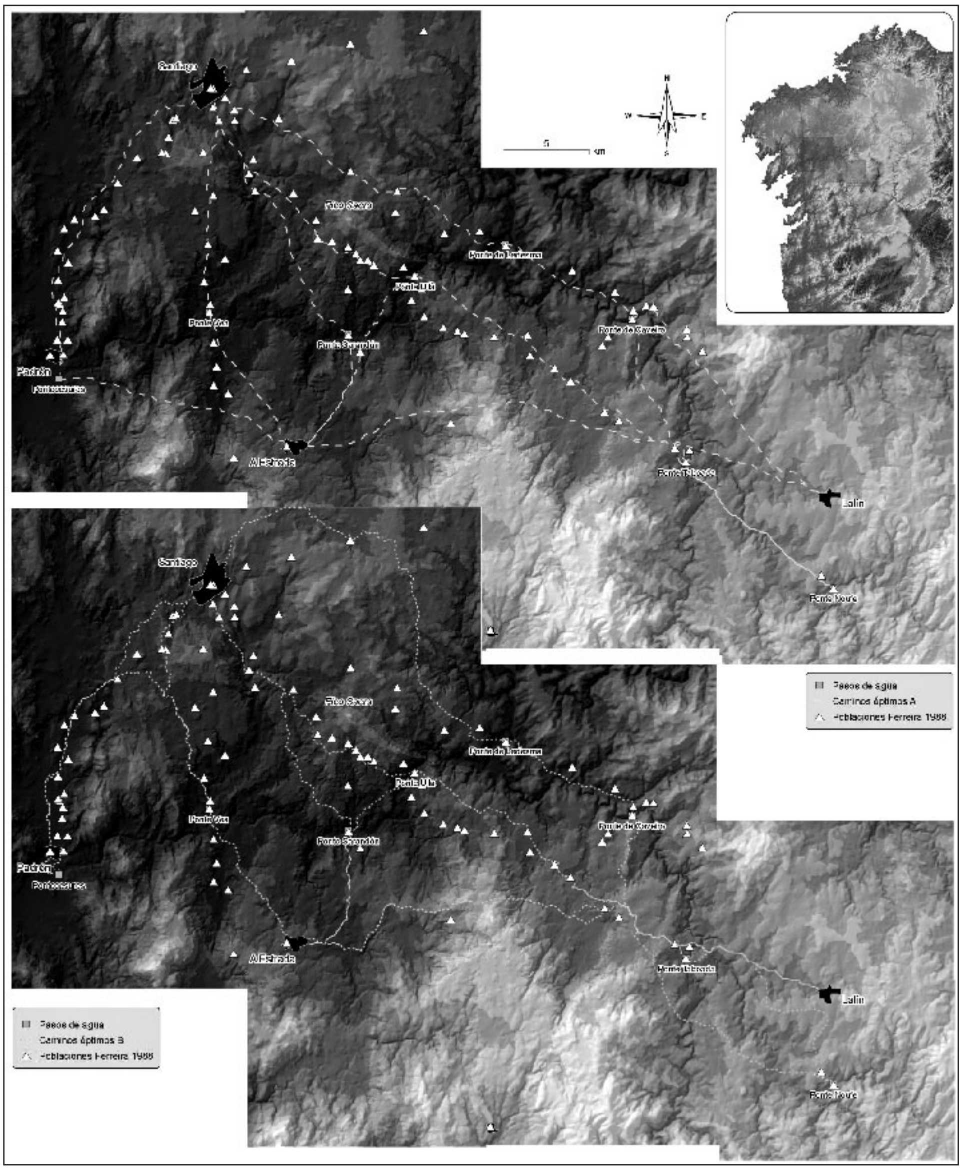

Fig. 4 – Routes depicted in Fig. 3 and their relation with medieval settlements, after Ferreira 1988.

The weight of these nodes becomes more evident once we overlay the distribution of medieval settlements related to routes (according to the textual documentation, after FERREIRA 1988) to those new optimal pathways (Fig. 4). Obviously, these figures allow only a broad approach to the question, since they do not incorporate important issues such as the reliability of the documents or the chronological differences. All those questions are discussed in the source we have used (FERREIRA 1988), and it will probably be very useful to bring them into our analysis, in order to explore the close relation between optimal routes and historical evidence[6]. In any case, the figure shows a rather significant convergence between routes and settlements (especially in example A, the one determined after Tobler's algorithm, that also coincides the most with the map of current roads). The interesting point now is the difference with the previous step of the analysis: except for very specific positions (such as South of Ponte Ulla or the surroundings of Ponte Caaveiro), the points in the map (that is, the medieval settlements actually located by the main pathways) do not seem to be previously existing nodes for optimal routes; on the contrary, there is a strong coincidence between the theoretical optimal routes and the distribution of medieval settlements. In other words, we could interpret that, aside from exceptions, the distribution of settlements does not determine the allocation of routes, but has been historically determined by a route network that joins a number of primary towns (mainly Santiago and Padrón within the study area) and some key crossing points of the rivers.

A good way to further explore this question is through a detailed analysis of the case of Lalín. Although this town is relevant for the understanding of the present-day settlement structure in that region, historically it has not been as deeply rooted as Santiago or Padrón; actually, it was not an important point within the network of medieval roads (FERREIRA 1988: 123[7]). Since Lalín has been kept as a node in the former figures, an interesting divergence happens around Ponte Taboada, as mentioned above: some optimal routes (those leading to Ponte Noufe) go through the medieval bridge of Ponte Taboada, while others (leading to Lalín) pass about 1 km North. That position is exactly the location of the present-day bridge of Ponte Taboada, following the main road N-525. If Lalín is understood as a node recently incorporated into the system, the displacement of Ponte Taboada begins to make sense.

In a similar preliminary way, we can try to approach the case of Roman roads, where we will encounter an additional problem: we have very few nodes to determine the optimal routes, because the relative documentation

[6] For instance, sometimes references to paths and roads are geographically very general, so that precise location of points in the map is not always possible.

[7] «After Ponte Taboada the road, that still largely preserves the original slabs, heads to the South of Lalín, towards Xesta, Donsión and Ponte Noufe».

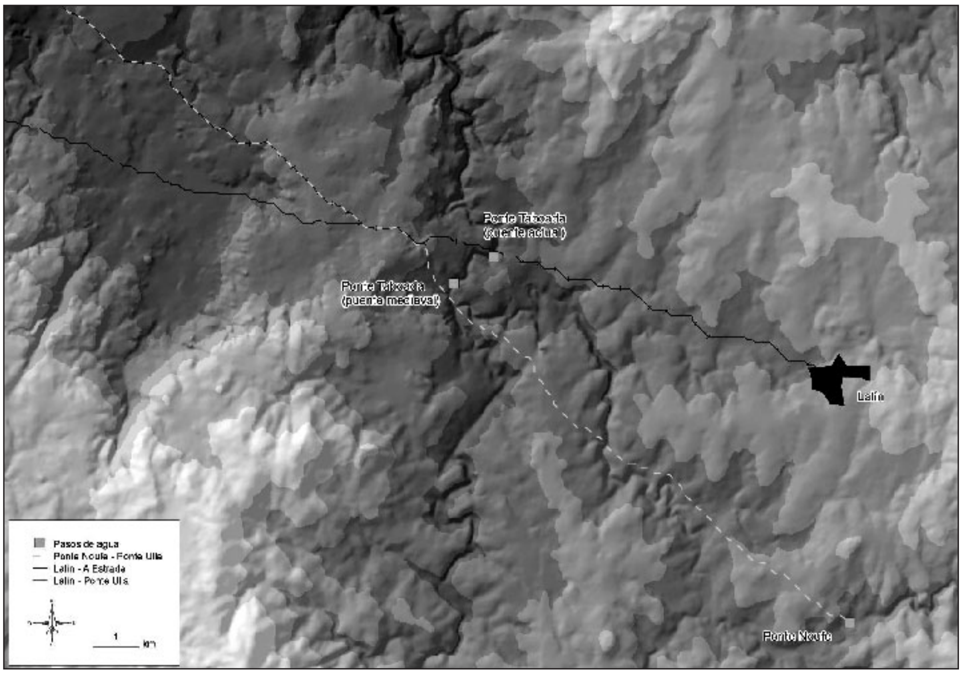

Fig. 5 – Detail of Fig. 4 in the area around Lalín and Ponte Taboada (routes according to Tobler (A) algorithm).

is both less available and less informative. That implies the existence of different proposals for the reconstruction of the Roman roads in the area: basically *viae* XIX (*Bracara-Lucus*) and XX (*Bracara-Lucus per loca marítima*), complemented by secondary roads. Fig. 6 shows the most significant recent proposals, by Rodríguez Colmenero *et al.* 2004; Pérez Losada 2002 and Franco Maside 2000[8].

If we deal with the problem following our initial approach, the basic settlement landmarks for the period in our area are just two: Iria Flavia and Santiago de Compostela. Both have been characterized as *mansiones* of Roman roads, occupied perhaps from the 1st century AD onwards (the first one is the most relevant, according to Pérez Losada 2002)[9]; they are, in any case,

[8] These proposals are cartographically very generic, except the one by Rodríguez Colmenero *et al.* 2004 so we have depicted the lines in the map after data gathered from the cited texts.

[9] Iria Flavia preserves the Roman name, while Santiago is generally identified with *Assegonia* (Suárez, Caamaño 2003), although different interpretations exist (Franco Maside 2000).

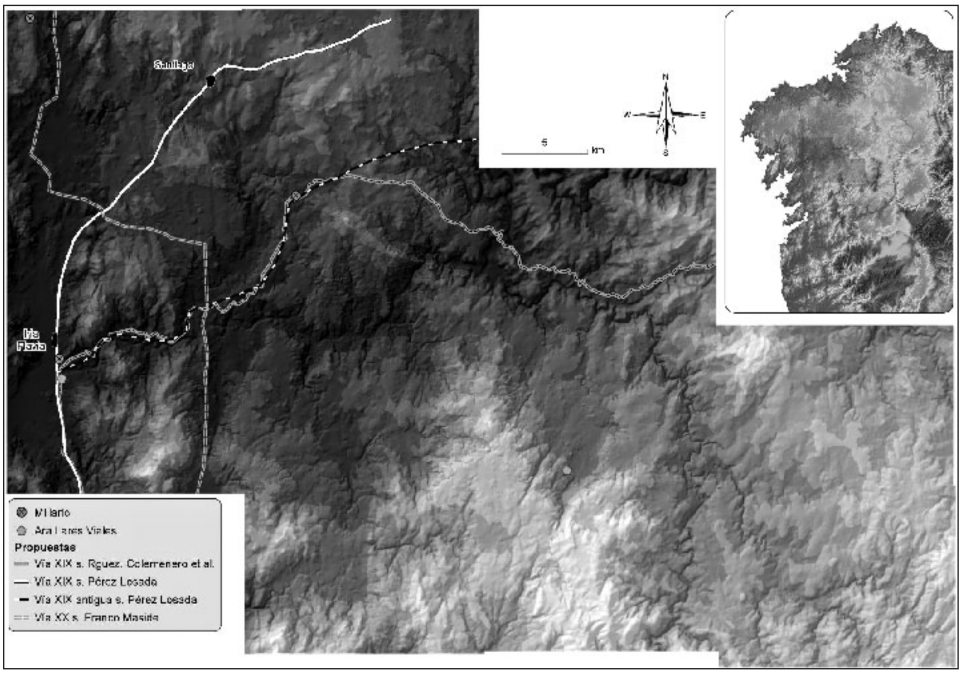

Fig. 6 – Main proposals for Roman roads in the study area.

the only significant Roman settlements known in the area so far. We also have other useful evidence, like the existence of three Roman milestones and two altars (*arae*) devoted to *Lares Viales* (RODRÍGUEZ COLMENERO *et al.* 2004), although they must be considered at a different level, since they only mark passing points[10]. The first thing we can do is to determine the optimal routes between the key nodes in the area (main settlements), to follow with secondary nodes (milestones and *arae*). The result (Fig. 7) is far less revealing than the former analyses, due to the above-mentioned scarcity of nodes[11]. Even so, we can propose some interesting interpretations, especially when compared to the former maps. The only common part is the route between Santiago and Iria Flavia, which is very similar indeed between the two algorithms, and also very similar to the medieval optimal routes. However, it is more difficult to

[10] The milestone from Gándara is thought to be part of a settlement, although a minor one, perhaps a rural *villa* (BOUZA BREY 1970).

[11] A couple of important Roman settlements (*Aquae Celenae* or *Aquae Calidae*) located outside of the study area, although quite to the SW limit. Perhaps a minor increase in the size of the area will provide far more significant results.

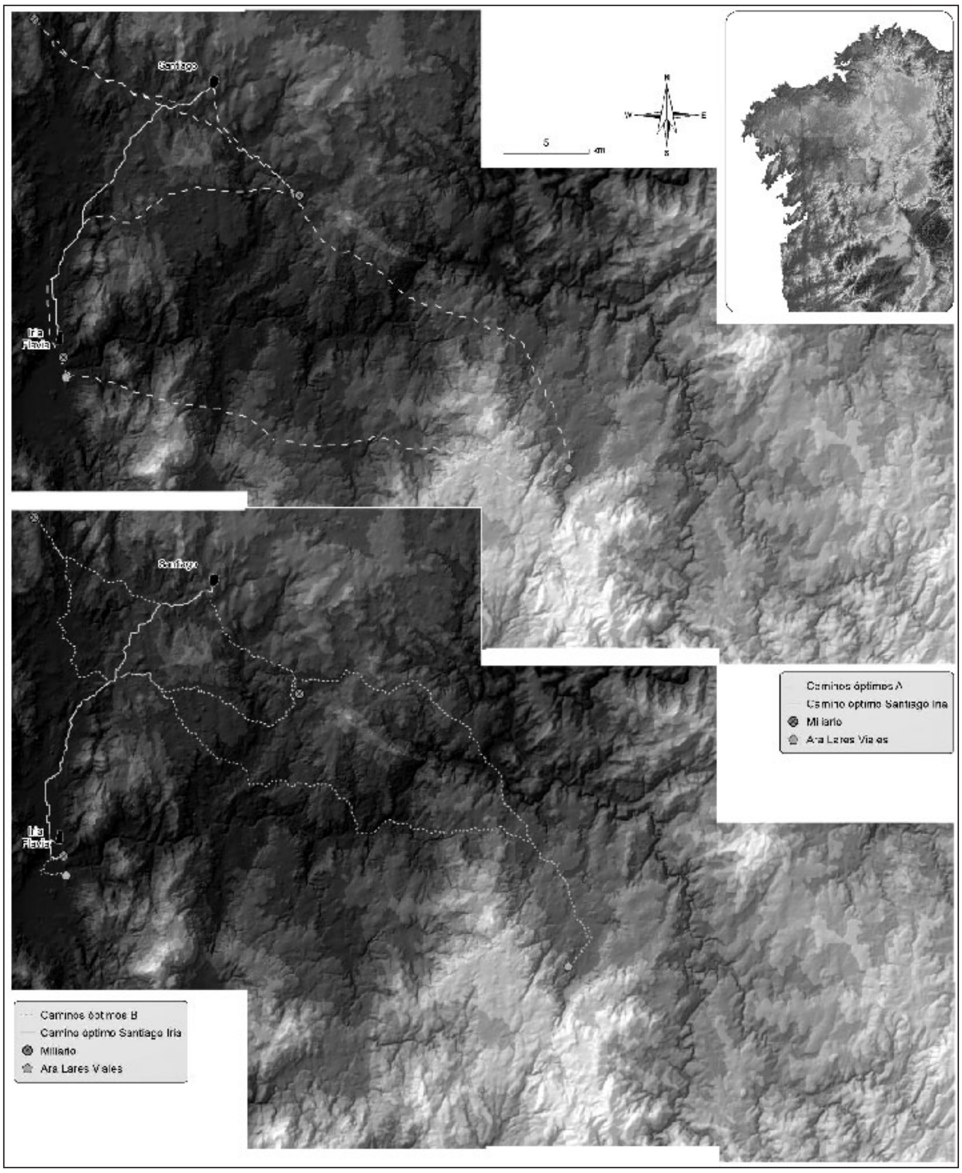

Fig. 7 – Optimal routes between Roman period nodes, according to Tobler 1993 (A) and Bell, Lock 2000 (B) algorithms.

affirm, from our analysis, the proposal for the XIX road in parallel to the Ulla river, which may be the only route of this road (as for Rodríguez Colmenero *et al.* 2004) or just an initial route, modified later (as for Pérez Losada 2002). None of the optimal routes follow that tortuous path, but move North, close to the location of Santiago, although that town is not within the optimal routes either (it must be noted, however, that, if we take into account other important nodes located to the East of the study area – such as *Lucus Augusti* – Santiago will probably match within a major optimal route)[12].

Additionally, we would like to remark the relevance of the optimal routes, as long as they incorporate a node located in Grava, Silleda (an *ara* in the centre of the map), especially if we follow algorithm A. Although the place is not connected to any important road nowadays (nor was it in the Middle Ages, according to the maps by Ferreira 1988), in relation with the remaining landmarks, it generates a series of routes that are indeed very coincident with those obtained for the medieval case (Santiago-Ourense or A Estrada-Pontecesures). Furthermore, those optimal routes are coincident with some places that, later on, are documented as relevant landmarks, such as the town of A Estrada (exactly on the optimal route between Grava and Iria) or Ponte Ulla (very close to the optimal route between Grava and Santiago, that also runs near to the milestone of A Gándara).

The reference to Ponte Ulla brings us back to the question of the crossing points of the rivers that, in this case, cannot be analyzed in detail due to the lack of Roman reference points South of the Ulla river. What is clear is that the area of Pontecesures was already a key crossing point in the Roman period, and perhaps Ponte Ulla too, as noted. We will focus our last stage of analysis around these crossing points: movement in the Iron Age. We have a rather complex map with a large number of settlement points for the period: basically, the set of nearly 100 hill forts documented in the area so far[13]. However, that network is complex and confusing, since it is neither *a priori* a hierarchical network (like those we have employed so far), nor chronologically classified (those points are generally just Iron Age in relation to their concrete chronology). We would need to approach those questions in advance, in order to make a detailed modelling of movement in that period, and this is just something that remains to be done. However, we can try to explore one specific question: to what extent can the relevance of the crossing points of the rivers be traced back to the Iron Age?

[12] Similarly, the absence of the above mentioned nodes at the SW does not allow us to verify the proposal of Franco Maside 2000 for the *via* XX.

[13] It must be noted that hill forts are the only type of Iron Age settlement site in the NW Iberian Peninsula.

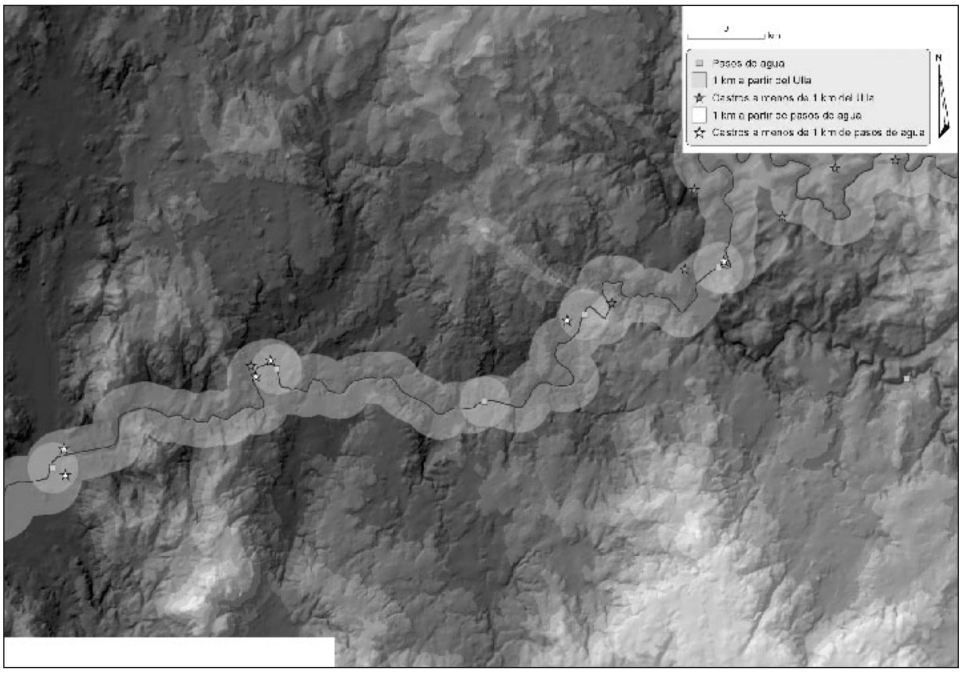

Fig. 8 – Relationship of lineal proximity between hill forts, the Ulla river and historical bridges.

We proceeded by exploring the relationship between hill forts and the Ulla river basin and, in particular, the historically documented bridges and fords. That relationship can be understood, in its simplest way, as a question of linear closeness, which gives us a first approach (Fig. 8): 13 out of the nearly 100 hill forts of the area are placed less than 1 km from the river; 6 of them are less than 1 km from one of the historic bridges or fords. That is a fairly high percentage, around 50%, but by no means self-explanatory. However, it must be noted that the analytical procedure is somewhat confusing because, based upon linear distance, some hill forts actually placed on very prominent and inaccessible hills by the river appear to be close to it. That effect is especially remarkable in the Eastern part of the map, beyond Ponte Ulla. In order to correct that effect, we tried to deal with the problem of the actual accessibility to the river. We moved from the linear range of 1 km to an approximately equivalent range of accessibility, like the 15 minute isochronic line (Fig. 9). The new analysis largely modifies the previous results, and gives us a more accurate image of the actual proximity between hill forts and the river: only 7 out of the 13 hill forts located within 1 km from the river are actually close to it, within the range of 15 minutes; and 6 out of those 7 are

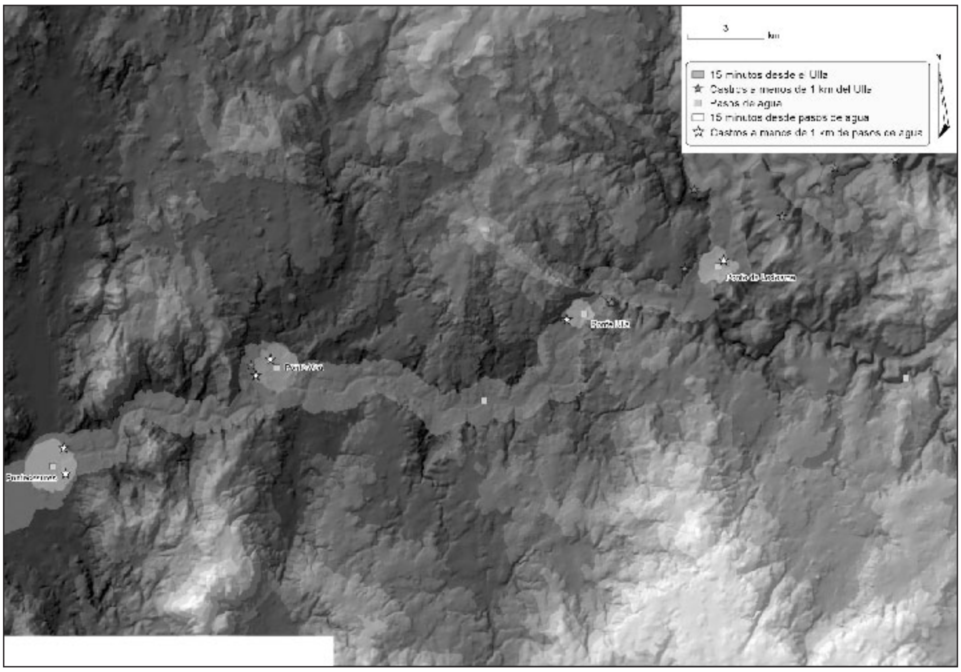

Fig. 9 – Relationship of accessibility between hill forts, the Ulla river and historical bridges

also within a 15 minute range of the historic bridges or fords[14]. That does not allow us to absolutely conclude the pre-Roman origin of those crossing points, but at least it gives us an illustrative clue on the relevance of those positions in relation to Iron Age settlement, together with a basis for further analyses on movement and paths in the period.

4. Concluding remarks and further perspectives

As we have been saying, this study should be considered basically as a methodological approximation and demonstration. Our priority has been the development of an analytical procedure to approach the understanding of movement in an archaeological perspective, and to test the possibilities of its application in a geographical area where interesting, though uneven, documentary and archaeological evidence was available.

[14] Furthermore, the hill fort excluded (near Ponte Vea) is actually very close to the 15 minutes limit.

From that perspective, speaking in methodological terms, we feel that one of the main consequences of the study is the documentation of the different results obtained by the two algorithms used. In that sense, it seems that Tobler's proposal offers results that are sufficient to calculate optimal routes in terms of effort, as long as it is very coincident with the available evidence, at least from the Middle Ages on: the minimum effort logic followed by that model seems to be very similar to the historically existing one in our area, at least under the analytical conditions used here (namely, a 25 m basic resolution).

In historical terms, we think that one of the most remarkable results of the work is the existence of a few points that would have acted as fundamental nodes for the arrangement of the roads and paths network in this area; these points are not only the main and more deeply rooted towns, as presumed, but also the **crossing points** of the river. The connection of both series of points is what seems to have acted to build a basic network of paths, since the rest of settlements are a "product" derived after them.

Obviously, the analysis summarized here is only a first, general approach to the question that is based on data already available rather than on extensive field work. However, we do not believe that this is the most obvious way to improve the system; on the contrary, in order to increase the significance, we think that the next step should be to increase the size of the study area and the incorporation of new, well known primary nodes, equivalent, for instance, to Santiago in medieval and modern times, or to the crossing points of Ponte Ulla, Pontecesures or Ponte Vea. This process will be especially important for the analysis of periods with few well documented nodes, like, for instance, the Roman period.

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ABSTRACT

Movement has played a significant role in archaeological analyses of territoriality in recent years. The incorporation of technologies such as GIS has reinforced that role, since they have made it possible to conduct detailed in-depth investigations of the natural constraints for movement. In this paper we describe a procedure developed to explore the relationship between networks of pathways, settlements and territory, following a "backward" perspective that tries to approach the processes of historical transformation of pathways. The proposal is applied to an area in Galicia (NW Iberian Peninsula), between the provinces of A Coruña and Pontevedra.