

# Research Information System (RIS):

## General principles and applications for Information Management

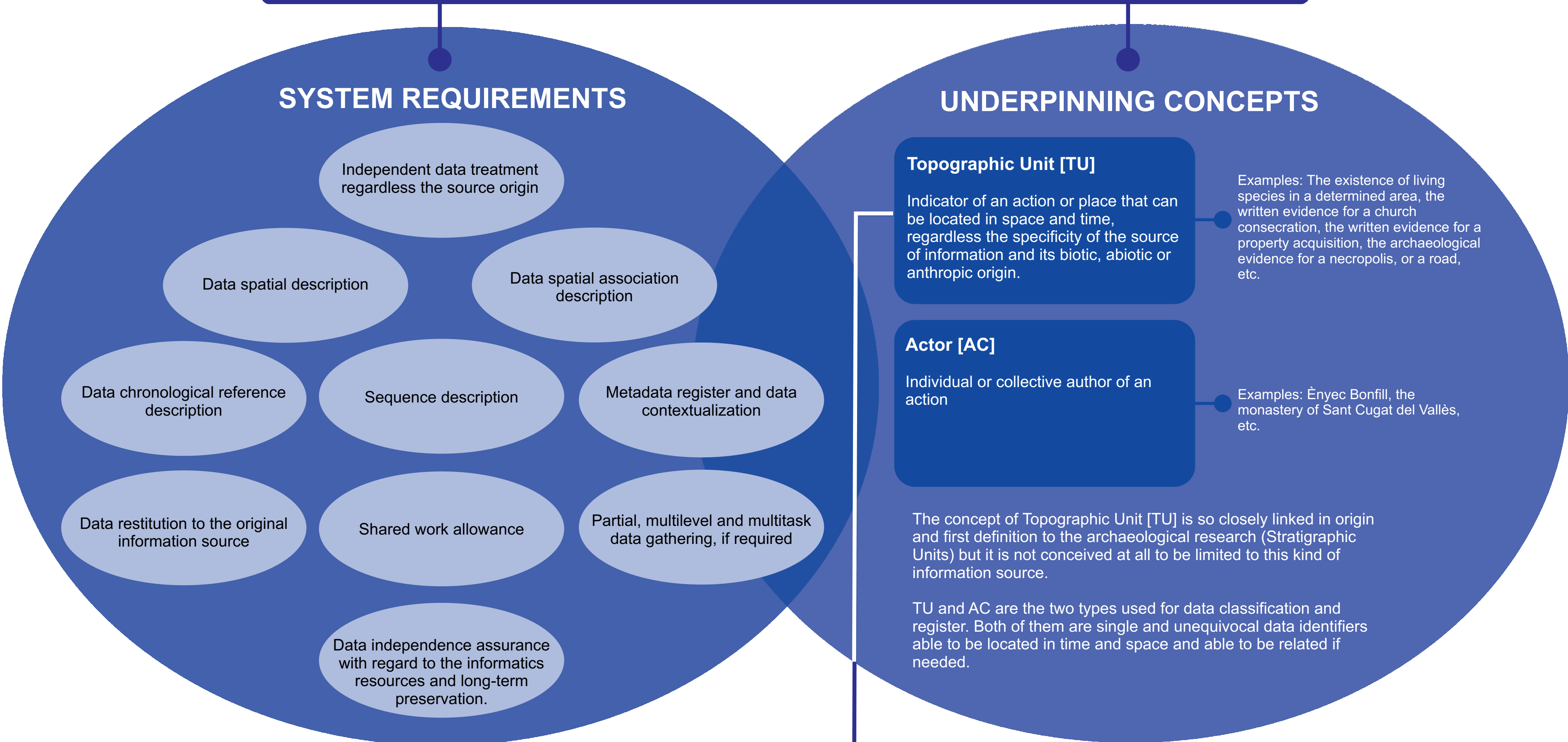
Alfred Mauri i Martí (Escola Superior d'Arxivistica i Gestió de Documents UAB ; Centre d'Estudis Martorellencs)  
Esther Trave Allepuz (Universitat de Barcelona)  
Pablo del Fresno Bernal (Sistemes de Gestió de Patrimoni SCCL)



OPEN SCIENCE  
& THE HUMANITIES  
CONFERENCE 2018

June 21st  
Universitat de Barcelona, Aula Magna

The changes occurred within paradigms of research processes have turn open data into a key element that requires reconsidering the way our work is done and information is dealt with. This overhaul also aims at developing new cross-cutting and transdisciplinary approaches. Research based upon a single source of information is not possible, particularly when information can be gathered from multiple sources such as written texts, archaeological evidence, paleoenvironmental data, material sciences lab results, etc. The Research Information System introduced in this poster has been successfully applied since 1997. It was designed as a response to ten system requirements and structured from two underpinning concepts.



In nomine Domini. Ego **Simplizia** <sup>1</sup> et **sorori mea** nomine **Cixolo** <sup>2</sup>, nos simul in unum uinditores sumus tibi **Gulara** <sup>3</sup> presbiter emptor. Per hanc scriptura uindicionis nostre **uindimus** <sup>4</sup> tibi **terra** <sup>5</sup> et **uinea** <sup>6</sup> et **arboribus** <sup>7</sup> et **olliaria** <sup>8</sup>, hec omnia francum nostrum (pro)prium qui nobis aduenit, ad me Simplizia per ienitores meos et per compara et ad me Cixolo per ienitores meos et per ullasque uoces. Et est hec omnia in comitatum Barquinona <sup>9</sup> infra termine de Terracia <sup>10</sup> in locum uocitatum Monte Agudo <sup>11</sup>. Afrontad ipsa terra et uinea cum ipsos arboribus qui ibi sunt fundatos de oriente in **aragallo** <sup>12</sup> et in terra <sup>13</sup> de **Godmar** <sup>14</sup> et suos eredes, de meridie in **terra** <sup>15</sup> de **Ego** <sup>16</sup> femina, **mulier** de **Erulio** <sup>17</sup> et de **Guisado** <sup>18</sup>, de occiduo in **uia** <sup>19</sup> et in **terra** <sup>20</sup> de te emptor, de circi in **terra** <sup>21</sup> de **Guisad**.<sup>22</sup> Quantum istas afrontaciones includunt, sic uindimus tibi ipsa terra el uinea et arboribus, in ipso aragallo **ficulnea** <sup>23</sup> I cum **pruneras** <sup>24</sup> et **uides** <sup>25</sup>, in alios locos **prunera** <sup>26</sup> I et **ficulneas** <sup>27</sup> II et **hogaria** <sup>28</sup> et **pecera** <sup>29</sup> et **glandifero** <sup>30</sup> I et **olliera** <sup>31</sup> I ab integre cum exios et regresios earum ad tuum proprium propter **precium solidos VI et denarios IIII ex moneda grossa**, quod manibus nostris accepimus et est manifestum, et de nostro iuro in tuo tradimus dominio et potestatem ad faciendum quod uolueris. Quod si nos uinditrices aut ullusque homo qui contra hanc ista carta uindicione uenerit pro inrumpendum aut nos uenerimus, non hoc ualead uindicare, set conponad aut conponamus tibi oc quod supra insertum est in duplo cum omnes illorum inmelioraciones, et in antea ista carta uindicione firma permanead omnique tempore. Facta carta uindicione VI kalendas februarii anno XXII regnante Rodberto rege. Sig+num Simplizia. Sig+num Cixolo. Nos, qui hoc fecimus et firmare rogauimus. Sig+num Godmar. Sig+num **Mir**. Sig+num **Issamo** SS. **Ansemundo** presbiter scripsit cum literas superpositas in uerso V die et anno quod supra.

Data incorporated to TU or Ac registering files can be gathered from any kind of information source. Within the example at the left the transcription of a document is shown and the identified data to be registered are highlighted. Minimum information units (TU or AC) are identified with a unique and sequential number both for TU and AC. Information related to values (e.g. the price of a transaction), chronology and relation between actors are also registered.

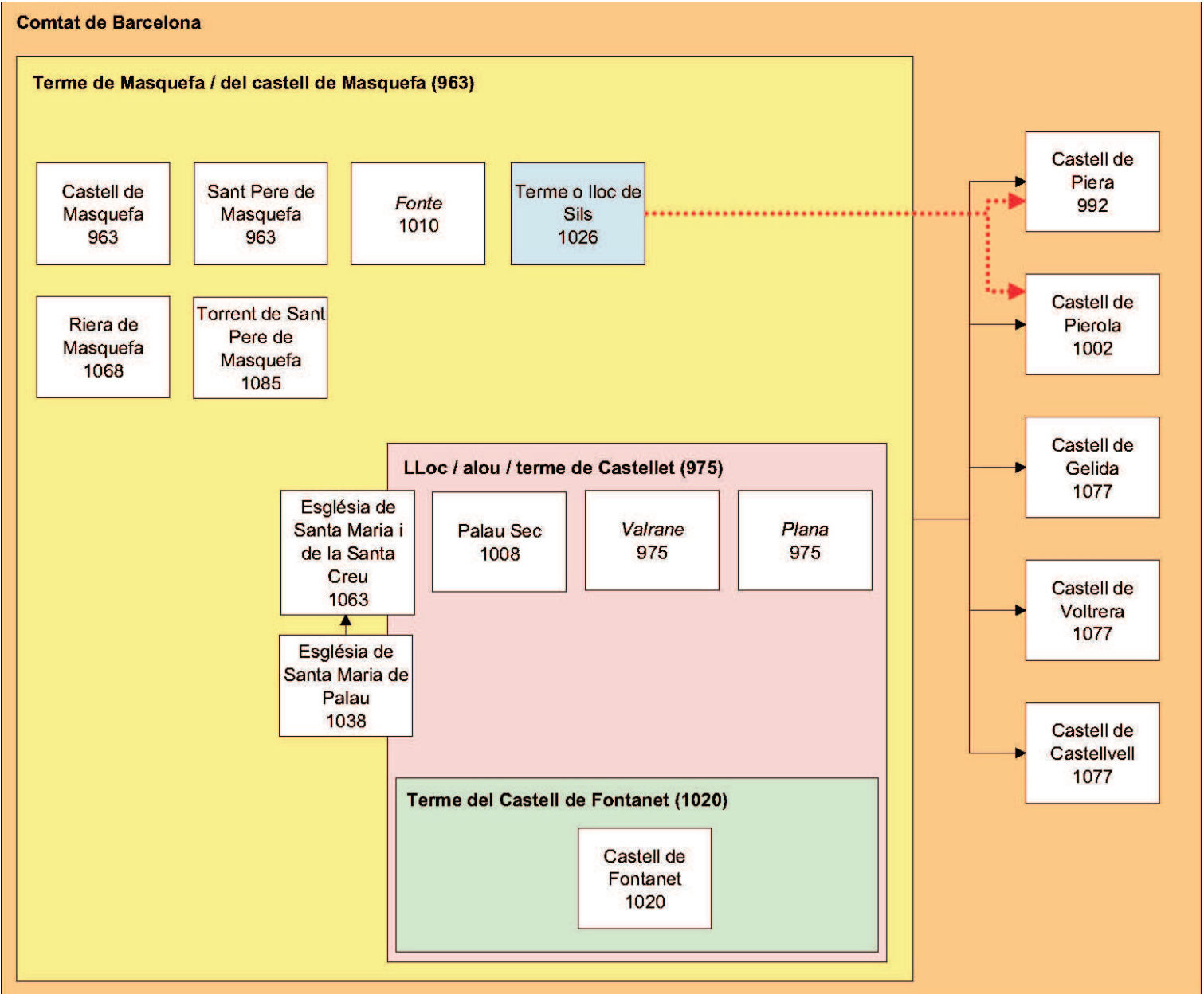
### Data identification within the document

AC   
TU   
Values, chronology or relations

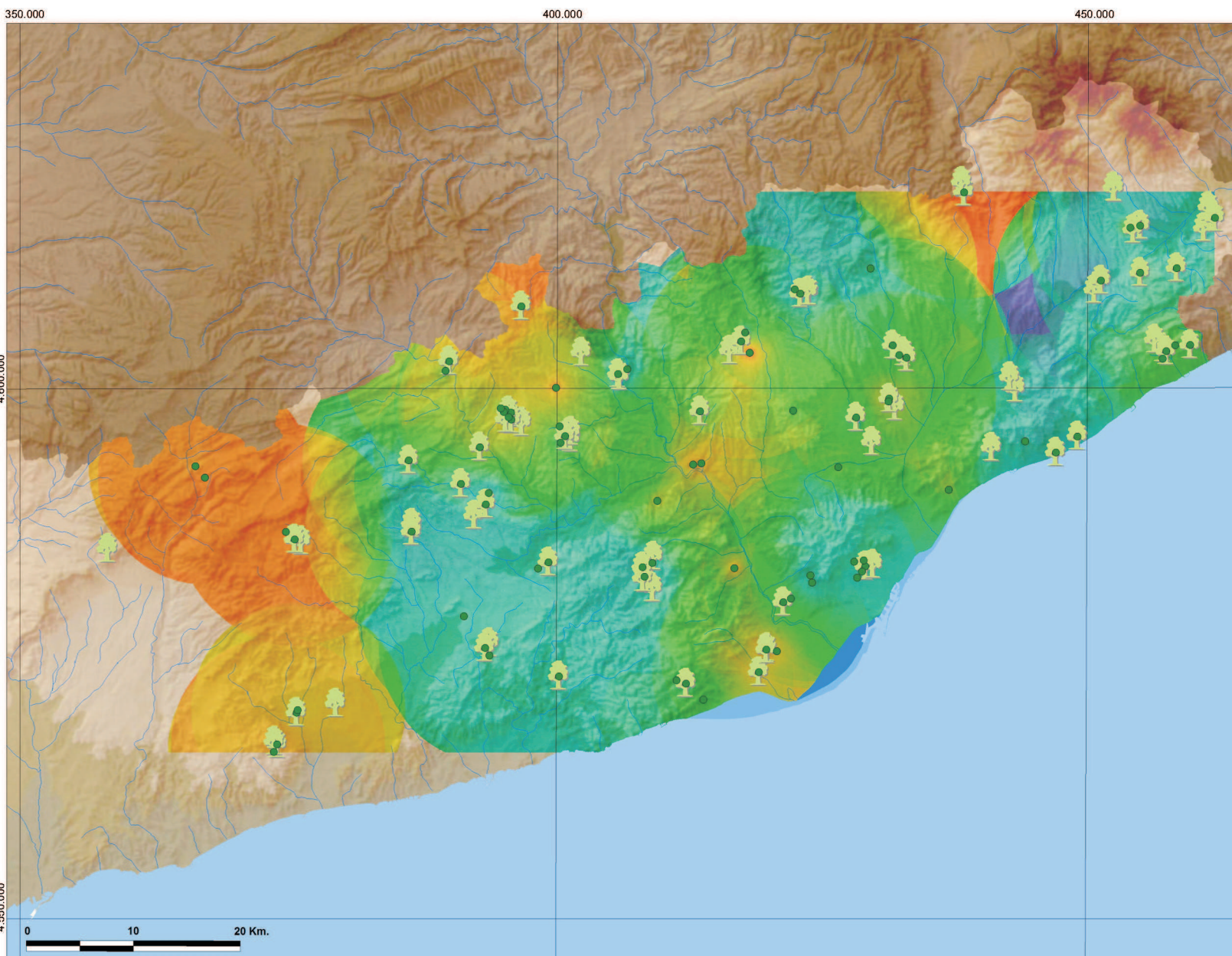
### TU REGISTER FILE

Fitxa d'UT		22584	
Identificació i posició	Ubicació	Àmbit administratiu	Ref. territorials
Unitat topogràfica	Genèrica	Comarca	Àmbit / relació
20634	Genèrica	Anoia	20658
Coordenada UTM X	Tipus d'UT	Municipi	Nord <input type="checkbox"/>
	Polygon	Masquefa	Oest <input type="checkbox"/> Est <input type="checkbox"/>
Coordenada UTM Y		Lloc	Sud <input type="checkbox"/>
Sistema i atributs			
Atributs del sistema biòtic			
vegetació, vinya			
Atributs del sistema abiòtic			
Atributs del sistema antròpic			
agricultura, viticultura, vinya			
Datació			
Datació inicial		Datació final	
- 29 - 01 - 1085 dE. /			
Valors i dimensions		Etiqueta	
Valor i unitats		vinea	
Dimensions i unitats		Menció de relació	
Font d'informació			
Tipus de font		Font	
Documental		CSC, 721	
Notes			

Further exploitation of data registered as TU or AC files enables their analysis in accordance with the research objectives: statistical, parental relationship, social, geospatial, etc. As shown in the examples below, RIS methodology puts into value massive amounts of data that had been considered irrelevant in the past. Their massive exploitation demonstrates their extreme value as a historical source to explain the perception and layout of a territory or wood landscape.



Analysis of the spatial hierarchy in the territory of Masquefa in the 11th Century generated from the TU register files.



Analysis of written mentions of oak trees (green dots) overlapped to the interpolation of their chronology and the general mentions to woods in the County of Barcelona in the 11th Century.