

BURNING AND WILDFIRE IN RURAL CULTURE: THE NANSA VALLEY (CANTABRIA, NORTHERN SPAIN)



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GEOGRAFÍA, URBANISMO Y
ORDENACIÓN DEL TERRITORIO

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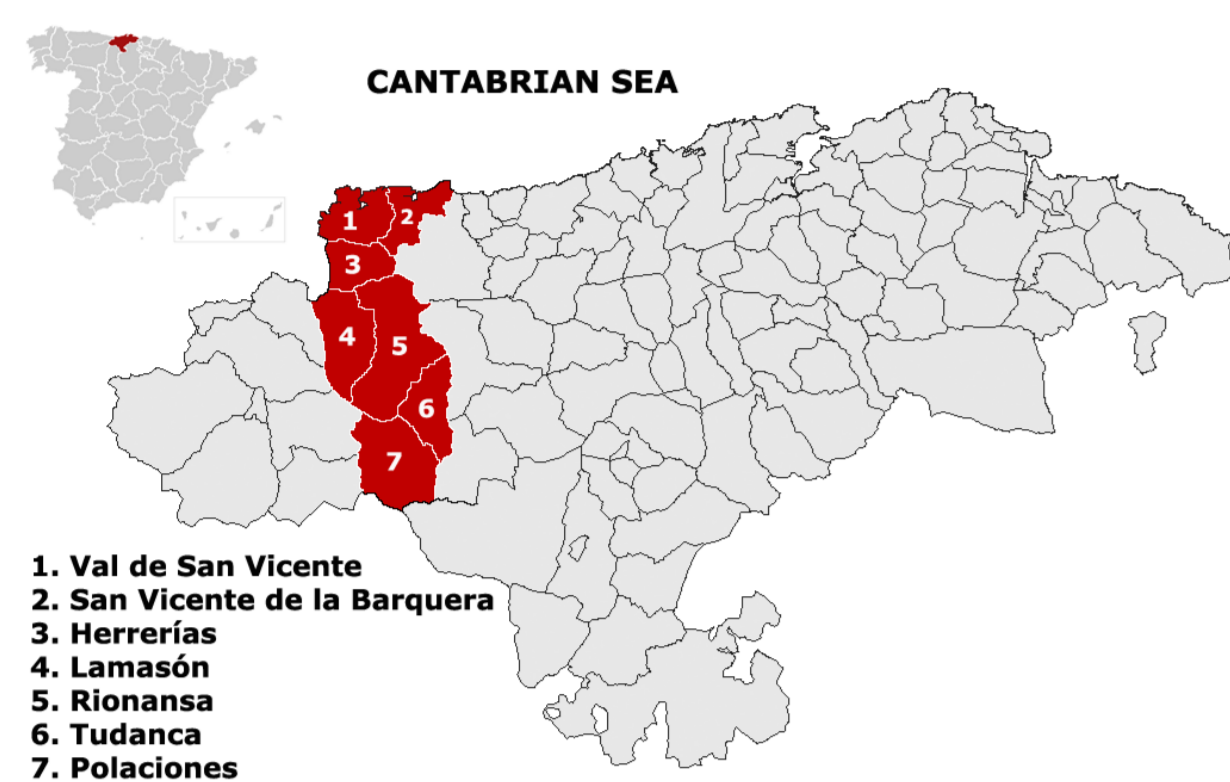
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AIMS

- Identify the wildfires of the eighteenth and first half of the nineteenth centuries from historic document sources.
- Analyze their characteristics (frequency, intensity and type of surface affected) and motivations.
- Determine the lines of continuity between the historic wildfires and current ones in the Nansa Valley.

A research project funded by the Spanish National R & D Plan CSO2012-39680-C02-01: *El uso del fuego y la conformación de los paisajes en la Montaña Cantábrica y el Pirineo Oriental* (The Use of fire and the formation of landscapes in the Cantabrian Mountains and the Eastern Pyrenees).

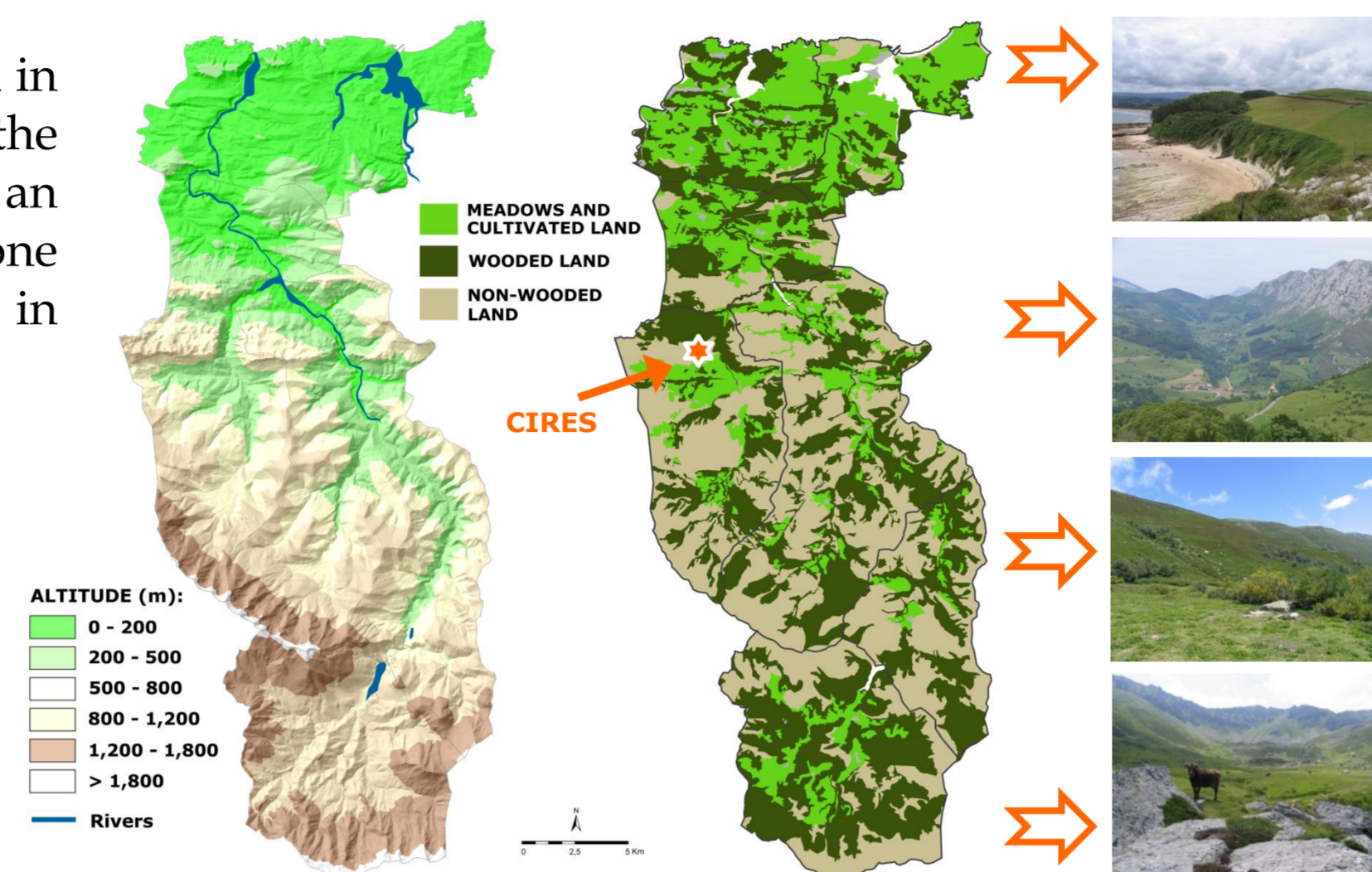
THE NANSA VALLEY



The Nansa valley is located in the northern slopes of the Cantabrian Range. It is an eminently mountainous zone with peaks over 2,000 m in altitude.

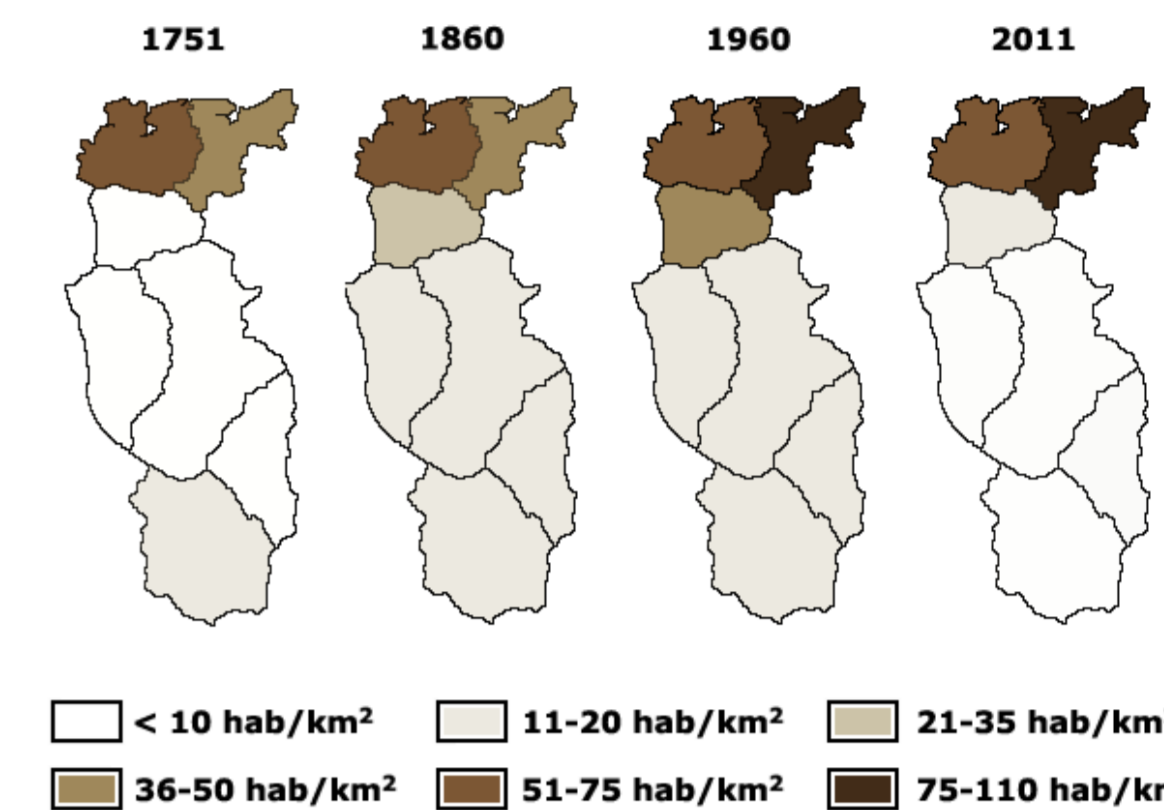
The steep gradient of its relief and the low population density of the land enable a significant forestry surface to be maintained (82% of the valley), in which scrubland and forest are dominant, often in a patchwork formation (Fig. 1).

Fig. 1. The Nansa Valley



The landscape and land uses have hardly changed since the eighteenth century, maintaining a very low pressure on the land and (Fig. 2) a traditional cattle-based economy (Doc. 1) in which extensive beef farming is dominant, with emphasis on the autochthonous Tudanca breed.

Fig. 2. Population density



Cires (Lamasón): "... Rain-fed land for sowing... rain-fed meadows for scything... scrubland and forests of thorn and undergrowth... mountain chains that provide pasture for cattle and sheep... high hill-lands of beech and oak" (1752) (AHP, Ensenada).

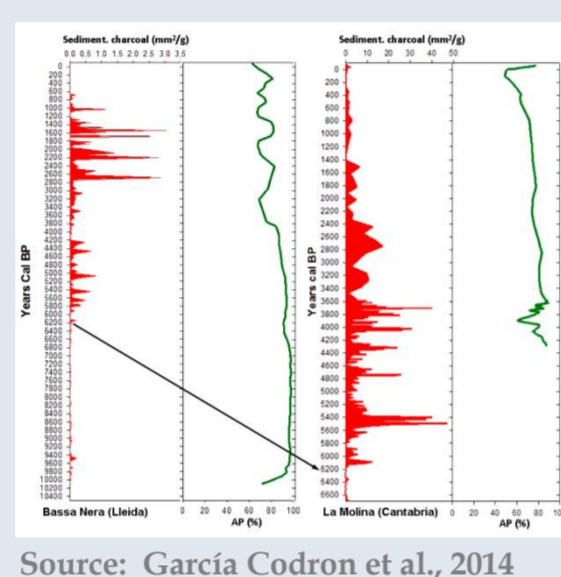
Doc. 1

METHODOLOGY

RESEARCH PROJECT FRAMEWORK

The project that gave rise to this communication has the aim of reconstructing and interpreting the history and evolution of forest fires during the Holocene. To achieve this, diverse techniques and analysis methods are combined to provide data from 7000 BP.

TECHNIQUES AND ANALYSIS METHODS



Source: García Codron et al., 2014



Source: Ministerio de Agricultura, Alimentación y Medio Ambiente

HISTORIC DOCUMENT SOURCES (1700-1850)

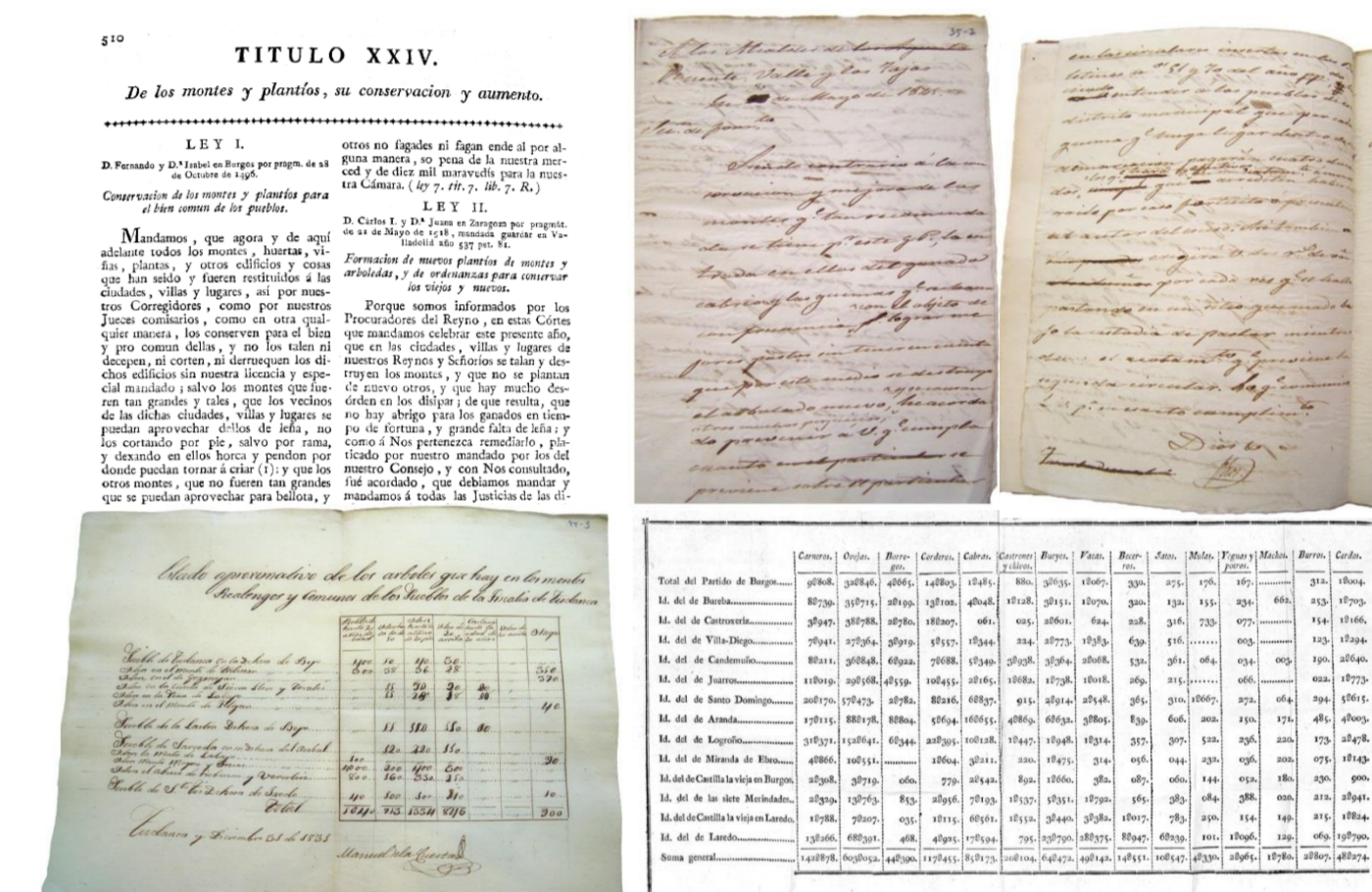
The documentation found on fires is not very abundant, above all when compared with the documentation related to land use. Nevertheless, the information they provide is revealing to understand the relationship between wildfires and burning, and to differentiate between these two types of fires.

DOCUMENTATION CENTRES

- National Historic Archive (AHN)
- General Archive of Simancas (AGS)
- Provincial Archive of Cantabria (AHP)
- Municipal Archives

DOCUMENTATION

- Taxes
- Land use applications
- Received rents
- Court cases
- Local norms (ordinances, forest authority...)

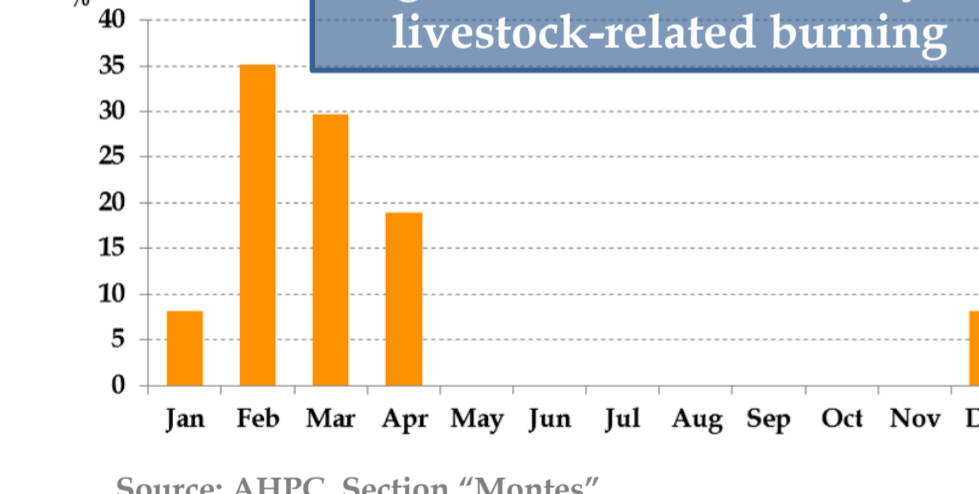


RESULTS

BURNING

- Burning of scrubland was a traditional livestock practice employed to create, sustain, and provide access, to the pasture that fed the livestock, the base of the rural economy (family consumption, commerce, transport...), and definitively to maintain the agro-system.
- Burning was done at the end of the winter and beginning of spring (Doc. 2) (Fig. 4), that is, sufficiently early so that the pastures were prepared when the livestock went up. The rapid regeneration of the woody vegetation needed the practice to be repeated every three or four years (Fig. 5).

Fig. 4. Historic seasonality of livestock-related burning



Source: AHP, Section "Montes"

Fig. 5. Regeneration of woody vegetation after burning



"Around Christmas and Saint Andrew's day each year the councils and share-farmers' organizations arranged the adaptation of livestock farmers to each type of livestock: and around January, February and March, these livestock farmers would set fire to the mountain and hill lands..." (1845) (AHP, Leg. 93, f. 35)

Doc. 2

- Although the neighbours regulated this activity through local norms (Doc. 3), the Crown Administration's growing demand for timber meant that the villages were obliged to apply for authorization, which implied that some requisites had to be fulfilled (Fig. 6), under penalty of sanctions (Doc. 4).

Local ordinances of the Tudanca Valley: "... it is ordered through this chapter that no person or neighbour of said council take fire out from home, neither at night nor during the day, with a risk that it causes fire during windy weather, nor drop it along the paths where it could cause fire ... whoever does so will be punished with 60 maravedies (old Spanish coins) and the courts will castigate... No person will place fire in the hill lands and slopes of said council without the approval of said council and neighbours due to the great damage that could be done" (1705) (BMS, Ms 470, f. 17-18)

Doc. 3

Fig. 6. Procedure for application for burning

- Delimit the area to be burnt
- Define a minimum distance to tree line
- Burning with calm weather (without wind) and dry
- Make firebreaks
- Presence of representative of forest administration
- Communal control of fire (village council and mayors)

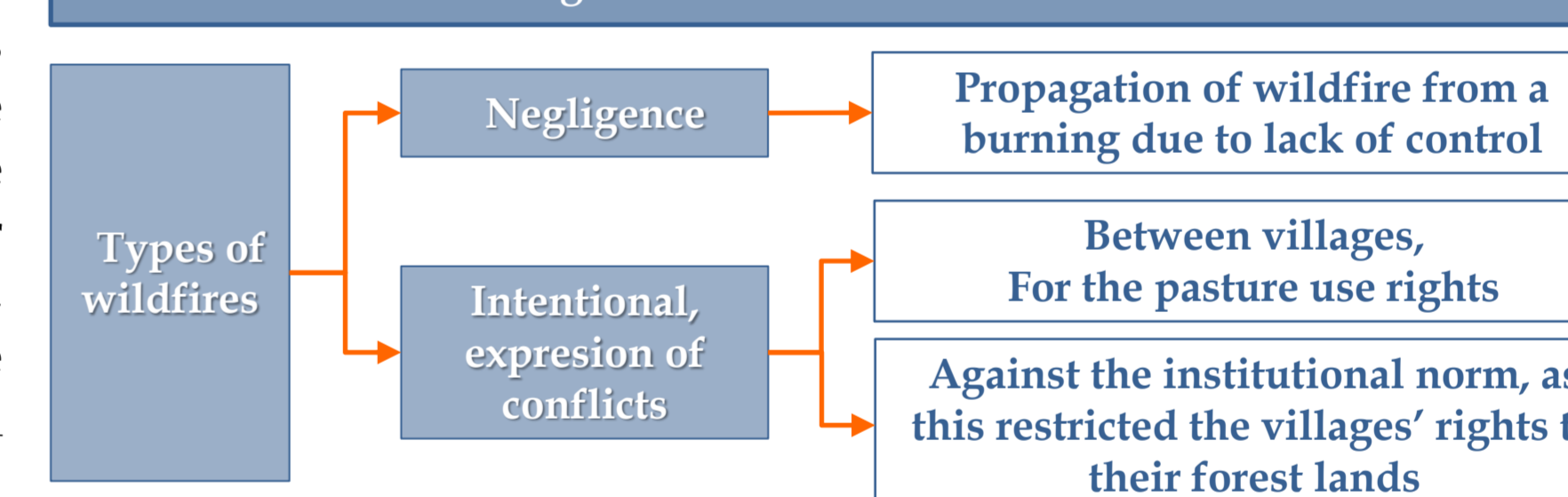
Source: AHP, Section "Montes"

"... not for a single day should advantage be taken of the burnt land, under the responsibility of the Mayors and the other civil servants, who will answer with their assets and persons..." (1847) (R.O., January 20)

Doc. 4

WILDFIRES

Fig. 7. Classification of wildfires



Source: AHP, Section "Montes"

- The civil servants of the Administration denounced as "wildfire" all burnings done by the villages that do not fulfil the established requisites: sometimes because no application had been made at all; other times, despite the licence being granted, they acted without supervision. It can be interpreted as an expression of conflict (Fig. 7).

- The Crown's interests took precedence over those of the villages given that the extension of wooded surface (Doc. 5) competed with the increase and maintenance of the surface dedicated to pasture (Doc. 6). The adscription of the Nansa Valley into the jurisdiction of the department of shipyards of El Ferrol worsened this conflict.

"... Having inspected the hill lands of the Cabazón Council and it has been found (that there are) several wooded sites burnt and quite a lot of damage and, moreover, the forests destined to reproduction" (1850) (AHP, Leg. 84, f. 24)

Doc. 5

- The Mayors and local justices covered up the legal transgressions of the neighbours and, moreover, flagrantly disobeyed the Royal norms (Docs. 7 and 8).

"... the Mayors have not done their duty, some for conformity and others because, to remain in their role, they are permissive with their villages... they appear to do while doing nothing unless they are ordered to" (1845) (AHP, L. 93, f. 35)

Doc. 7

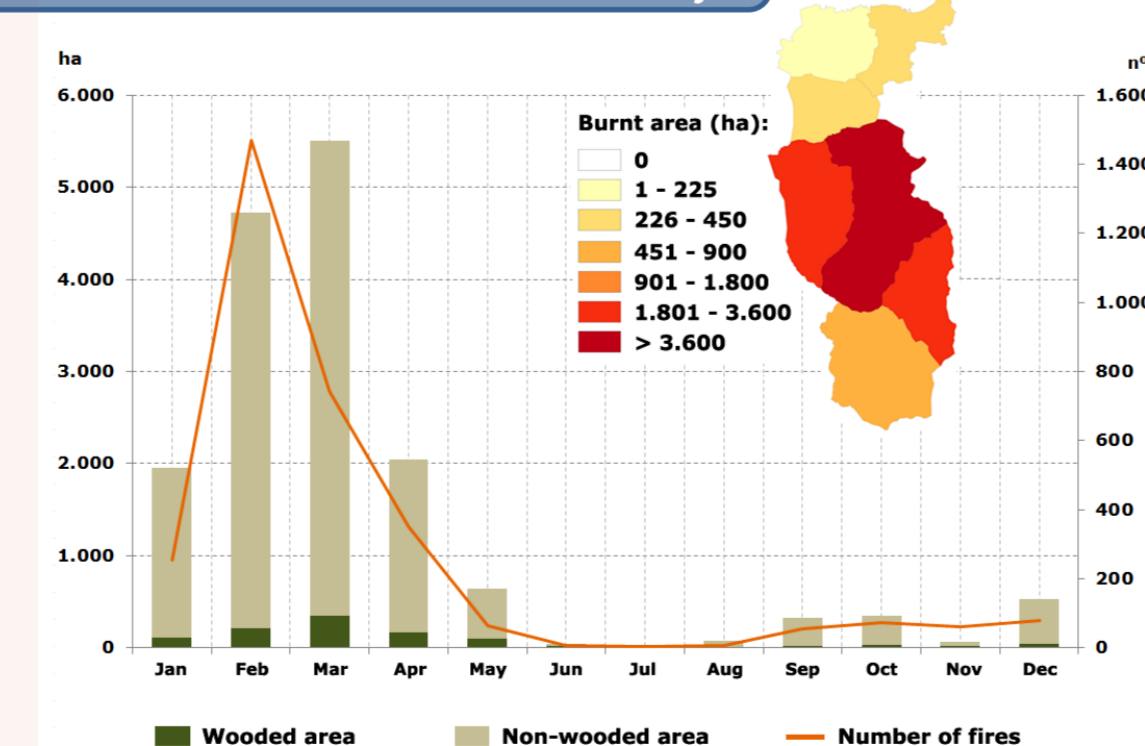
"...the cited Royal Order has not been fulfilled, the citizens pay no attention and stop at nothing in order to get pasture for their livestock...; there have been at least seven wildfires, this spring... and in no case was there an arrest" (1849) (AHP, Leg. 88, f. 70)

Doc. 8

FINAL REMARKS

- The burnings and wildfires nowadays have similar characteristics to those carried out historically. Fire has been, and is, utilized as a technique for facilitating ploughing and maintenance of pasture and transit for hill land spaces, which can therefore be considered as a determinant factor in the genesis of the region's landscapes and ecosystems.
- Its practice is therefore seasonal (end of winter-beginning of spring) (Fig. 8) and it affects a type of vegetation cover that consists principally of scrub, the dominant formation in the basin, coinciding with the municipalities in which extensive livestock farming is still the principal activity.

Fig. 8. Spatial and temporal distribution of wildfires nowadays



- The centuries-old use of fire reveals the permanence of some basic regulation principles that have hardly changed, and which are related to both the norms about use (under supervision, without wind...), and the procedures and precautions that have to be adopted in the surfaces affected (enclosure, prohibition of uses) (Fig. 9), which are not always fulfilled.

- Fire is also used nowadays as a means for pressurizing in periods of conflict. It usually has a livestock-related origin, but the "wildfire" nature is always due to the type of vegetation cover affected and the competition with other interests: private or public, commercial or environmental (climate change, conservation, etc.) and those derived from regional, national or European Community policies.

Fig. 9. Administrative decision of enclosure due to burning without permission



SOURCES

- Archivo Histórico Nacional (AHN), Secciones "Hacienda" y "Cámara de Castilla"
- Archivo General de Simancas (AGS), Sección "Cámara de Castilla"
- Archivo Histórico Provincial de Cantabria (AHP), Secciones "Montes" y "Ensenada"
- Biblioteca Municipal de Santander (BMS), Sección "Manuscritos"
- Boletín Oficial de Cantabria (BOC), nº 101, miércoles 28 de mayo de 2014. Resolución acordando el acotado al pastoreo por incendio forestal en los terrenos en el monte Correpeco, número 14 del Catálogo de Utilidad Pública de Cantabria (CUIP), perteneciente al pueblo de Correpeco. Consejería de Ganadería, Pesca y Desarrollo Rural.
- EGIF. Estadística General de Incendios Forestales. Gobierno de España, Ministerio de Agricultura, Alimentación y Medio Ambiente (MAGRAMA), Dirección General de Desarrollo Rural y Política Forestal, Área de Defensa contra Incendios Forestales.
- Novísima Recopilación de las Leyes de España mandada formar por el Señor Don Carlos IV, en que se reforma la Recopilación publicada por el Señor Don Felipe II en el año de 1567, reimpresa últimamente en el año de 1755. Madrid, 1805.

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