

# Multi-temporal Landscape History in Burgundy: An Innovative Application of Genealogy Software

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## Abstract

An essential aspect of reconstructing past land use is analyzing the social, political and economic factors that drive land-use decisions. Finding this kind of historical data, especially for early periods, can be difficult. Records pertaining to both land use and management are often sparse and inconsistent, and when one is researching at the scale of individual farms and land parcels, these problems are amplified. Parish and civil records of birth, marriages and death provide a type of consistent, year-to-year, source of data that has been seldom used in reconstructions of land-use change. In France these parish records contain, in addition to family relationships, information on the residence, occupation and wider social ties of not only the primary individuals named in the birth, marriage and death records, but also for the many others present as godparents, witnesses and mourners. This information can be invaluable for reconstructing past land use. *Family reconstitution*, the method used by historical demographers to reconstruct the genealogy of entire parishes or villages, is the method here used to identify farm families, reconstruct the greater social network, and extract occupational/land-use data. Readily available and inexpensive genealogy software such as *Family Tree Maker* can be used for family reconstitution and can be easily customized to accommodate tracing the larger social network, and to incorporate occupational and land use data.

**Key words:** *landscape, land use, GIS, family reconstitution, genealogy software*

## 1 PROJECT HISTORY

This work in historical demography is part of a larger interdisciplinary project that has been researching for over 30 years the historical ecology and landscape of an area in southern Burgundy encompassing the Arroux River valley and its uplands (see fig. 1 and 2).

Our research, while it does not have much spatial breadth, does have great time depth. Different parts of the overall research program span the period of the last 3000 years.<sup>1,2,3,4,5,6,7,8,9,10</sup> The

*Landscapes in Historical Perspective*, ed. Carole Crumley and William Marquardt (San Diego: Academic Press, 1987), 173-235.

<sup>3</sup> Scott Madry and Carole Crumley, "An Application of Remote Sensing and GIS in a Regional Archaeological Survey," in *Interpreting Space: GIS and Archaeology*, ed. K. Allen, S. Green and E. Zubrow (London: Taylor and Francis, 1990), 364-380.

<sup>4</sup> Sara Bon, "Common Wares: Approaches to a Gallo-Roman Ceramic Assemblage," Ph. D. Diss., Anthropology, University of North Carolina at Chapel Hill, 1999.

<sup>5</sup> Eric C. Straffin, "Fluvial Response to Climate Change and Human Activities, Burgundy, France," Ph. D. Diss., Geology, University of Nebraska-Lincoln, 2000.

<sup>6</sup> Elizabeth A. Jones and Carole L. Crumley, "Mont Dardon," in *Medieval Archaeology*, ed. Pam J. Crabtree (New York and London: Garland Pub., Inc., 2001), 225-26.

<sup>1</sup> Carole Crumley and William Marquardt, *Regional Dynamics: Burgundian Landscapes in Historical Perspective* (San Diego: Academic Press, 1987).

<sup>2</sup> Scott Madry, "A Multiscalar Approach to Remote Sensing in a Temperate Regional Archaeological Survey," in *Regional Dynamics: Burgundian*

research area is dominated by the peak of Mont Dardon (see fig. 3). Excavations by project members have revealed that the top of the mountain was the site of an early Iron Age hillfort, a Roman fanum, and a medieval chapel.<sup>11</sup> Other project research has investigated the Bronze Age burial mounds that dot the landscape around Mont Dardon,<sup>12</sup> the Roman villas in the narrow plains along the Arroux River a few kilometers from the mountain,<sup>13,14</sup> and a fortified medieval priory in the small village of Uxeau at the base of the mountain.<sup>15</sup> Farmhouses going back to the

seventeenth century and earlier are scattered around the countryside (see fig. 4) and extensive archaeological survey (including both on the ground and aerial prospection) has mapped the chronology of sites from all periods across this landscape. The project has also encompassed recent historical and contemporary farming and other land-use through archival history, oral history and ethnography.<sup>16,17</sup>

<sup>7</sup> Linda R. Danner, "Sociétés Savantes and the (Re)Production of Class and Regional Identity in Burgundy, France," Ph. D. Diss., Anthropology, University of North Carolina at Chapel Hill, 2005.

<sup>8</sup> Elizabeth A Jones, "Surviving the Little Ice Age: Family Strategies in the Decade of the Great Famine of 1693-1694 as Reconstructed Through Parish Registers and Family Reconstitution," Ph. D. Diss., Anthropology, University of North Carolina at Chapel Hill, 2006.

<sup>9</sup> Stephanie Renfrow, "Burgundy Through Space and Time," in *Sensing Our Planet: NASA Earth Science Research Features 2007*, NASA earth systems science data and services publication (Washington, D.C.: NASA, 2007).

<sup>10</sup> Amanda B. Tickner, "Consumption and Production at the Hill Fort Site of Mont Dardon, France: An Archeobotanical Study," Ph. D. Diss., Anthropology, University of North Carolina at Chapel Hill, 2009.

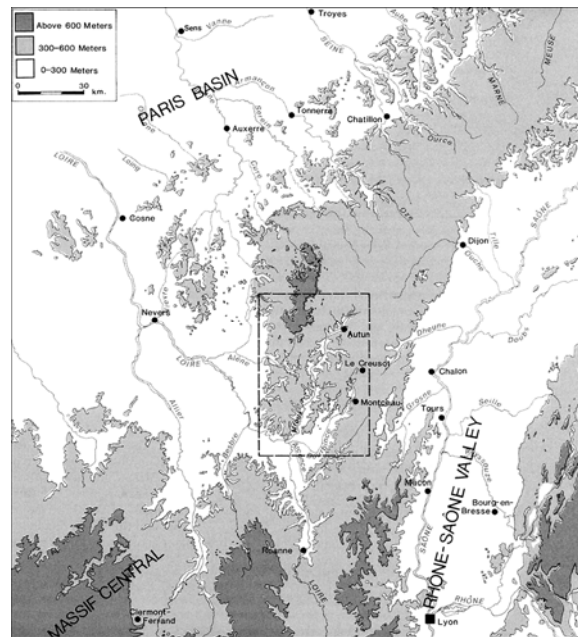
<sup>11</sup> Carole Crumley and William Marquardt, *Regional Dynamics: Burgundian Landscapes in Historical Perspective* (San Diego: Academic Press, 1987).

<sup>12</sup> William J. Meyer, "Agricultural Change, Ancient Mounds, and Archaeological Course-Correction: Some Field (and Forest) Notes from Southern Burgundy," in session *Rural Land Use and the Management of the Archaeological Historical*, chair Stephen Trow and Vincent Holyoak (paper presented at 15th Annual Meeting of the European Association of Archaeologists, 15-10 September Trento, Italy, 2009).

<sup>13</sup> Sara E. Bon, "Fouilles À La Grenouillère-La Landière," *Echos Du Passé* 73 (1992): 23-30.

<sup>14</sup> Sara E. Bon and Luc F. dit Miret, "Les Fouilles de la Grenouillère en 1991 et 1992," *Echos Du Passé* 71: 13-16.

<sup>15</sup> Elizabeth A. Jones, *Rapport sur les Fouilles Du Bourg d'Uxeau (Site Report on the Excavations at*



**Figure 1.** Location of research area in France. Used with kind permission from Carole Crumley

*Uxeau, a Former Medieval Priory*) (1994), Ms. On file. Direction Régional de l'Archéologie de Bourgogne (DRAC), Dijon.

<sup>16</sup> Carole L. Crumley, "From Garden to Globe: Linking Time and Space with Meaning and Memory," in *Columbia Series in Historical Ecology*, ed. Roderick J. McIntosh, Joseph A. Tainter and Susan Keech McIntosh (New York: Columbia University Press, 2000).

<sup>17</sup> Elizabeth Ann Van Deventer, "Redefining the Farm, Redefining the Self: Enduring Struggles in the Historical Transformation of Agriculture in Burgundy, France," Ph. D. Diss., Anthropology, University of North Carolina at Chapel Hill, 2001.

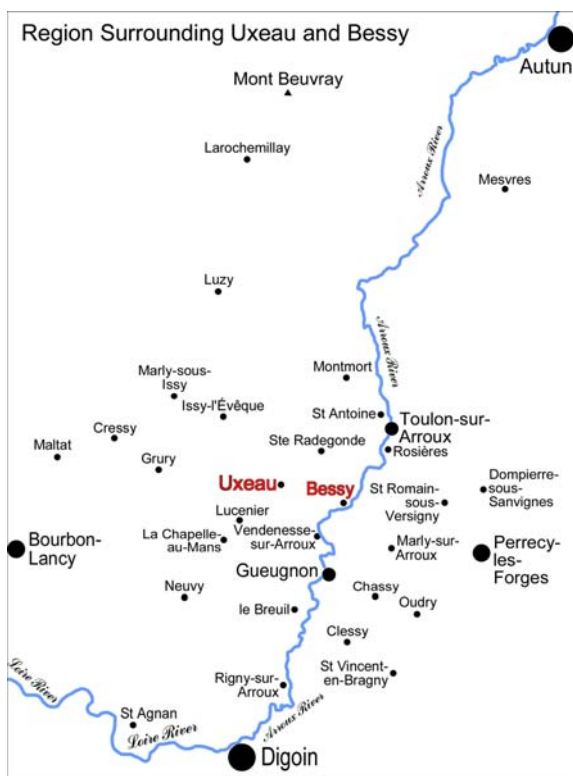


Figure 2. Research Area along Arroux River



Figure 3. View of Mont Dardon



Figure 4. Uxeau farmhouse "le Theatre."

Throughout that great 3000 year stretch of time, this area has remained an intensively exploited rural landscape of highly productive family farms. What has tied these studies together is a focus on the landscape, including land-use, social ties to the land, and the cultural meaning of the land as a sacred landscape.

## 2 RESEARCH IN HISTORICAL ECOLOGY

The theoretical perspective guiding all these interlinked, interdisciplinary studies is Historical Ecology.<sup>18,19,20</sup> The main tenet of historical ecology is that human systems and earth systems are dialectically linked, and that you cannot understand the one without the other. Thus, an essential aspect of reconstructing past land use is analyzing the cultural, social, and economic factors that drive land-use decisions. Our aim in reconstructing historical land-use practices through both their sociocultural and physical aspects, is to uncover essential information on how people maintained the viability of this resilient landscape during periods of significant environmental, political, and economic change.

To that end, our research approaches brought to bear in this work include archaeological survey and excavation, remote sensing, GIS spatial analysis, historical cartography, geological surveys especially concerning hydrologic systems, palynological studies from pond cores, archeobotanical analyses, climatic analyses from tree-ring cores, historical documentary research, oral history and contemporary ethnography of farming, pastoralism and gardening.

<sup>18</sup> Carole L. Crumley, editor, *Historical Ecology: Cultural Knowledge and Changing Landscapes* (Santa Fe: School of American Research Press, 1994).

<sup>19</sup> Balée William, "The Research Program of Historical Ecology," *Annual Review of Anthropology* 35, no. 5 (2006): 15-24.

<sup>20</sup> Carole L. Crumley, "Historical Ecology: Integrated Thinking at Multiple Temporal and Spatial Scales," in *The World System and the Earth System: Global Socio-Environmental Change and Sustainability Since the Neolithic*, ed. A. Hornborg and C. L. Crumley (Walnut Creek, California: Left Coast Press, 2007), 15-28.

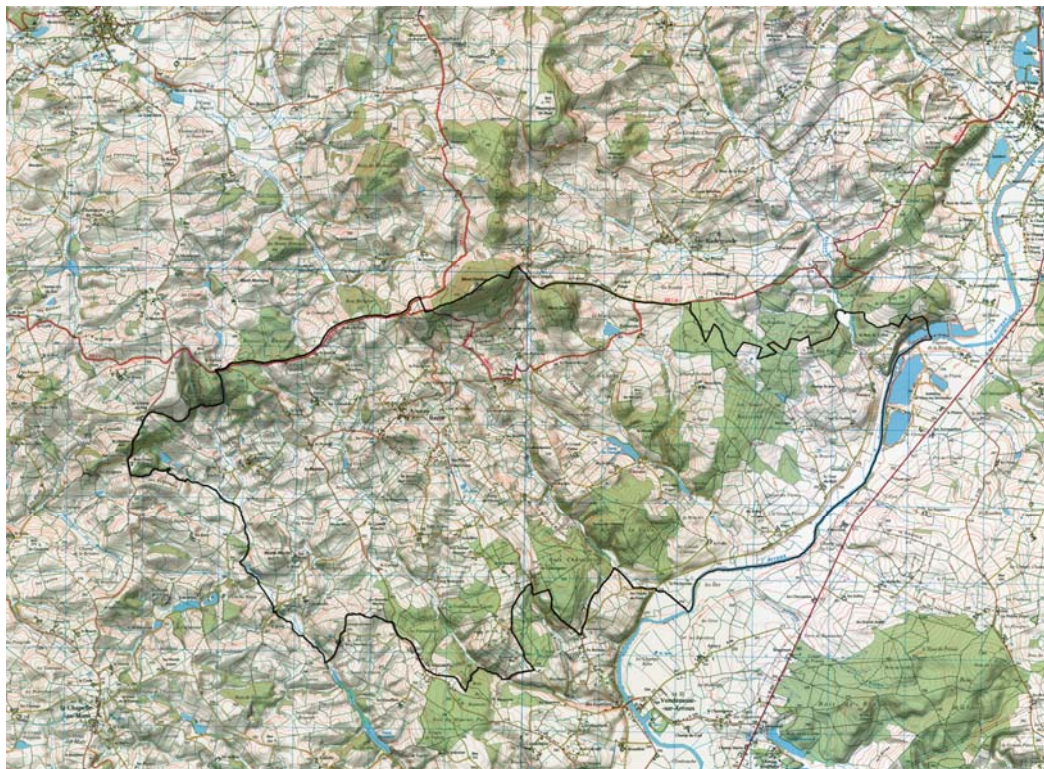


Figure 5. Modern Commune of Uxeau outlined in black.

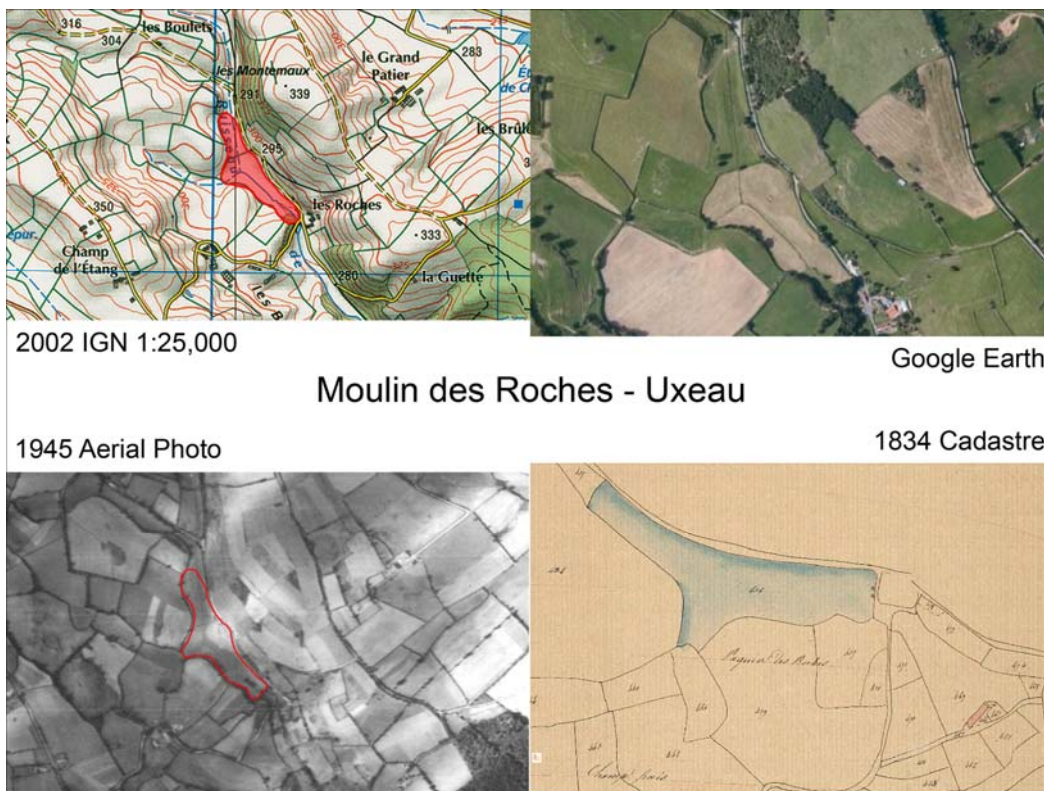


Figure 6. Examples of Google Earth image, modern topographical map, 1945 aerial photo and 1834 cadastral map.

### 3 CURRENT RESEARCH

Our research team, a subset of the larger working group, consists of myself, Dr. Scott Madry, Dr. Amanda Tickner and Dr. Dennis McDaniel. We are currently concentrating on the early modern history of farming and land-use for the area in and immediately surrounding the Commune of Uxeau from the 1690s to the present (communes are comparable to counties in the U.S. The Commune of Uxeau is only about 33 square kilometers in area) (see fig. 5). This work looks at changes related to climate and microenvironments, in the context of social, economic, and political structures.

The research builds on an extensive GIS data base of the area that has been built up over three decades by Dr. Madry. The database has over 150 layers of geographical and archaeological information, and already allows looking at field factors such as water drainage, slope, aspect, and soil types, in addition to analyzing the location of roads, mills, farms, hamlets and villages, all of which influence farm and land use strategies. The new research involves digitizing and adding a series of historic maps dating from the 1759 to 2002, 1945 aerial photos, and recent satellite imagery into the GIS database (see fig. 6). At the same time, corresponding archival documents on the history of land use are being integrated with the GIS data.

### 4 PROBLEMS WITH DOCUMENTARY SOURCES ON HISTORICAL LAND USE

For the early periods, however, it is difficult to find historical data directly relating to the local detailed patchwork of land-use and to the social factors guiding that use. For the 19<sup>th</sup> and 20<sup>th</sup> centuries, we have abundant data from cadastral surveys, tax records, agricultural reports, etc. to reconstruct the changing land-use in the Commune down to the level of the individual parcel.

The problem is that this kind of information does not exist for the earlier centuries, but even in the nineteenth and twentieth centuries there are gaps in our data. Although we have tax information

from 1791 to the present on the individual land parcels that includes type of land-use and the parcel owner's name, this information does not allow us to reconstruct the holdings of an individual farm in its entirety (see fig. 7-9).



Figure 7. Cadastral tax information from 1791 providing information on each land parcel in the Commune.

This situation was created by the fact that prior to the 20<sup>th</sup> century, much of the land here was farmed by large, communal sharecropping households that might have as many as 100 related family members living and working together, always eating at the same table, and managed by an elected *chef de communauté* and his wife (see fig. 10 and 11).<sup>21</sup> Some of the land might be owned by the *communauté* as a whole which existed as a legal corporate entity, other parcels were owned by individual members of the *communauté* in their own right, and a good deal of the land was owned by elites in surrounding towns who leased the land on a sharecropping basis, splitting the final proceeds with the farmers. Therefore one would have to have a great deal of information about the owners listed in the tax records, such as where they lived and their occupation, whether they were a bourgeois landlord in a local town, a member of a communal sharecropping farm versus a small family farm, etc., in order to identify the land holdings managed by individual farms and to begin to examine their land-use strategies.

<sup>21</sup> Henriette Dussourd, *Les Communautés Familiales Agricoles Du Centre de la France* (Paris: G.-P. Masionneuve et Larose, 1978) 31.



Figure 8. Cadastral map section from 1834 showing individual land parcels.

États de Sections des Propriétés Non Bâties et Bâties. Commune Uxeau, Canton Gueugnon, Arrondissement Charolles, Département Saône-et-Loire												
Name of proprietor	Habitation	1834 Section letter	1834 Parcel number	Place name	Land Use	Hectare	Are	Centare	Classes	Francs	Centimes	
Lauféron, Étienne	à Bassenier	A	195	à Bassenier	Maison			0	3	20	50	
Lauféron, Étienne	à Bassenier	A	196	à Bassenier	terre		5	40	2	1	46	
Lauféron, Étienne	à Bassenier	A	197	la Bruyette	terre		24	40	3	3	78	
Lauféron, Étienne	à Bassenier	A	198	la Bruyette	terre		4	80	3	0	76	
Lauféron, Étienne	à Bassenier	A	199	Pré Pilotin	pré		54	0	2	29	16	
Ducloux, Jean	à Bassenier	A	200	Pré du Creuzot	pré		31	20	3	10	30	
Sommant, Jean François	à Bassenier	A	201	la Bruyette	terre		15	10	3	2	34	
Thomas, Léonard	aux Jacobs	A	202	la Bruyette	terre			20	3	0	3	
Ducloux, Jean	à Bassenier	A	203	les Chenesière	terre		37	70	2	10	18	
Ducloux, Jean	à Bassenier	A	204	les Chenesière	terre		13	40	1,2	4	36	
Thomas, Léonard	aux Jacobs	A	205	les Chenesière	terre		2	30	1	0	87	
Thomas, Philibert	aux Jacobs	A	206	Pré de Sernet	pré		19	90	1	15	12	
Sommant, Jean François	à Bassenier	A	207	En Sernet	jardin		5	50	2	2	97	
Sommant, Jean François	à Bassenier	A	208	En Sernet	pré		5	90	3	1	95	
Sommant, Jean François	à Bassenier	A	209	En Sernet	terre		76	70	2	20	71	
Sommant, Jean François	à Bassenier	A	210	Pré Ducrot	pré		94	20	(3/4) 1,	66	42	
Sommant, Jean François	à Bassenier	A	211	Pré Pralon	pré		1	31	30	2	70	90
Sommant, Jean François	à Bassenier	A	212	Pré Pralon	bois		8	70	3	0	35	
Sommant, Jean François	à Bassenier	A	213	En Rondin	terre		1	0	20	1,2	32	57
Thomas, Claude, les héritiers	à Bassenier	A	214	le Rondin	terre		69	10	2	18	66	
Thomas, Léonard	aux Jacobs	A	215	le Pertuis de la Rue	terre		27	30	2	7	37	
Ducloux, Jean	à Bassenier	A	216	Pre de la Breniaule	pré		52	40	2,3	22	80	
Ducloux, Jean	à Bassenier	A	217	Vigne du Verger	terre		32	90	2	8	88	
Ducloux, Jean	à Bassenier	A	218	Vigne du Verger	vigne		26	50	3	2	12	

Figure 9. Cadastral tax data taken from 1866 records providing information on each land parcel in the Commune.



**Figure 10.** Early twentieth-century postcard of the Bassenier communal farm (*Communauté*) in Uxeau



**Figure 11.** Former *Communauté* of Grand Dardon in Uxeau as it looks today.

Census dating providing household information would be an easy way to collect this information on the owners in the tax records. Unfortunately, the census data for Uxeau does not occur until the 19<sup>th</sup> century. We had collected data on land use that was earlier—parcel information from 1791 and maps going back to 1759. And we wanted to take our land-use study back even further than that if possible.

## 5 PARISH/CIVIL RECORDS AND FAMILY RECONSTITUTION

I had the idea in 2003 that the best data for finding the background of these people, and their relationships to each other and the land might be found in the parish records (later civil records) of baptisms, marriages and burials in the community. This is how I became involved in historical demography as part of this ongoing

interdisciplinary investigation of land use history.<sup>22</sup>

The French parish records for this area contain a great deal of information. As well as giving the age, residence and occupation of the family members involved in the ceremonies, detailed information was also given about the marriage witnesses, mourners at burials, and godparents (a child always had two, a man and a woman that were not married to each other). Often, the records also provided for each of these peripheral persons, their residence, occupation and relationship to the family members (such as distant relative, employer, neighbor, etc.) (See fig. 12-14).

The best way to organize this data and to reconstruct the family relationships was through the method that historical demographers call “family reconstitution.” With family reconstitution it is possible to reconstruct households in the absence of census data. Basically this consists of doing genealogical research (i.e. making family trees) for the entire parish. Whether researching one family or an entire village, the process is exactly the same.<sup>23</sup>

## 6 GENEALOGY SOFTWARE: FAMILY TREE MAKER

Because many people are interested in reconstructing the genealogy of their own family, excellent software already exists for this purpose, and there is no need to construct a complex database for this research from scratch. I used *Family Tree Maker*, version 11 for Windows XP, copyright 2003. A newer version now sells for only \$39.95 on <http://www.familytreemaker.com>.

<sup>22</sup> Elizabeth A Jones, "Surviving the Little Ice Age: Family Strategies in the Decade of the Great Famine of 1693-1694 as Reconstructed Through Parish Registers and Family Reconstitution," Ph. D. Diss., Anthropology, University of North Carolina at Chapel Hill, 2006.

<sup>23</sup> E. A. Wrigley, et al., *Cambridge Studies in Population, Economy and Society in Past Time*, Vol. 32: *English Population History from Family Reconstitution 1580-1837* (Cambridge: Cambridge University Press, 1997), 12-13.

B Pierrette, fille de Pierre Laplace, et de Françoise Pornin, vigneron, née le 19<sup>e</sup> d'Avril 1696, a été baptisée par moy souly, Curé les mesmes jours et lieux par un a esté Antoine Pornin Thailleur de la Ville, de la maine, prestre de parolle, femme de Jean Thorey tout lab<sup>r</sup> de la Ville de Dardon, ne s'est point signez, non plus que Jean Lorcet marguillier et Louise Pâtaule sage femme. P. Compin

Pierrette, daughter of Pierre Laplace and of Françoise Pornin, winegrowers, was born the 19th of April, 1696 and baptized by me, the undersigned Curé the same day, and her godfather was Antoine Pornin, tailor and her godmother Pierrette Duparier, wife of Jean Thorey, all plowmen of the Village of Dardon, none of whom signed except Jean Lorcet, church warden and Louise Pâtaule, midwife. P. Compin

Figure 12. Example of baptism entry from 1696 Uxeau parish records with translation.

M Jean Berger, tisserin en Toille du Bourg d'Uxeau aagé deviron quarante ans assisté de François Girardiu Thailleur d'habill<sup>l</sup> son beaufrere de la Ville de Bassenier son oncle et d'autres ses parents, et Catherine Miel veuve de Léonard Ducloux lab<sup>r</sup> de la Ville de Bassenier, aagé deviron trente deux ans, assisté de Gratien Miel lab<sup>r</sup> de Nusillier son frere de Jean Ducloux auby lab<sup>r</sup> de Bassenier son cousin et d'autres, ont esté effousez par moy souly. Curé le Vingt septiesme Avril mil six cent quatrevingt cinq tous ne s'est point signez. P. Compin

Jean Berger, weaver of the town of Uxeau, aged about 40 years assisted by François Girardiu, tailor, his brother-in-law and by Pierre Berger, plowman of Ville Fèvre his uncle and others, his relatives and Catherine Miel, widow of Léonard Ducloux plowman of the village of Bassenier, aged about 32 years, assisted by Gratien Miel, plowman of Nusillier, her brother and by Jean Ducloux, also plowman of the said Bassenier, her cousin and others, were married by me the undersigned Curé the 27th of April 16, 1695, none of whom signed except François. P. Compin

Figure 13. Example of marriage entry from 1695 Uxeau parish records with translation.

f Gilbert Thomas Vivant lab<sup>r</sup> du Cillel du Nusillier de cede d'hier aagé deviron vingt deux ans a esté inhumbé par moy souly. Curé le 29<sup>e</sup> de May mil six cent quatrevingt quatre, present Emiliane Miel sa veuve, Gratien Miel son beaufrere et chef de communauté et autres qui ne s'est point signez non plus que François Lorcet Marguillier. P. Compin

Gilbert Thomas, living a plowman of the village of Nusillier, died yesterday aged about twenty-two years and was buried by me the undersigned Curé the 29th of May 1694, present Emiliane Miel his widow, Gratien Miel his father-in-law and head of his communauté and others, none of whom signed except François Lorcet, church warden. P. Compin

Figure 14. Example of burial entry from 1694 Uxeau parish records with translation.



Individuals from the parish entries are recorded on the “family page” (see fig. 15). A man is entered in the “husband” field and a woman in the “wife” field, whether they ever marry or not. According to standard historical demography practice, the “family page” is set up to record the major life events of an individual: birth, marriage, children and burial.

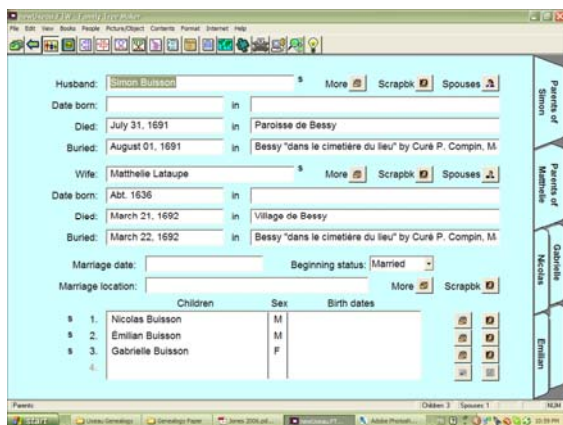


Figure 15. “Family Page” from Family Tree Maker Software.

Even so, I was not interested in the same kinds of questions that concern historical demographers—i.e. population shifts over time, fertility rates, mortality rates, etc. And although I uncovered this kind of information in the process of doing the family reconstitution (and it is of some use), my main focus was on land-use and thus the categories of “occupation” and “residence”. Family Tree Maker has a “Facts” page for each individual that allows recording of this information (see fig. 16). These categories can be entered multiple times along with the date to track changes in residence and occupation (see fig. 17).

Beyond identifying families and their farms, I also needed to reconstruct the social network to get at the social relationships that were involved in land transfers. In order to do this, I needed to take note of the people listed as godparents, marriage witnesses and mourners. These individuals are normally ignored by researchers doing historical demography and family reconstitution, but I found that with the software package Family Tree Maker it was a simple matter to customize the database and add these extra data categories to both the individual’s “Facts” page and to the “Marriage Facts” page (see fig. 18 and 19).

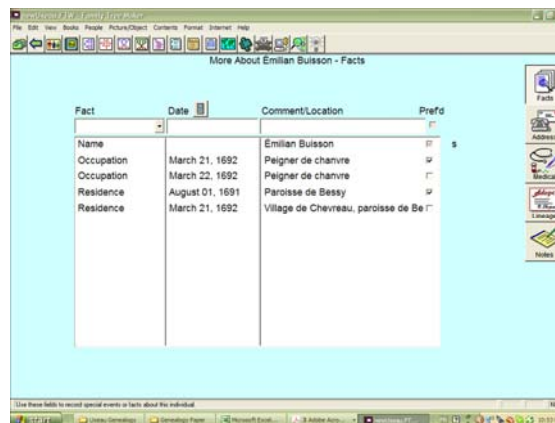


Figure 16. “Facts” page from Family Tree Maker Software.

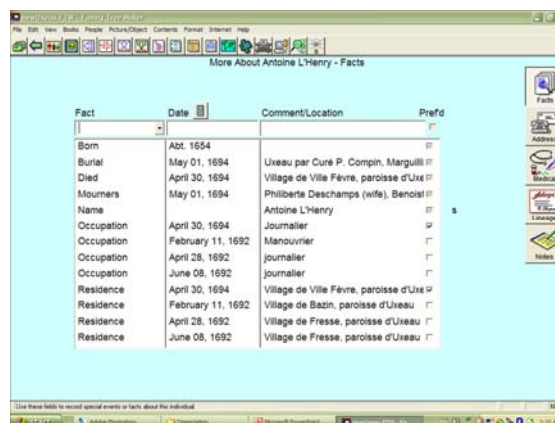


Figure 17. “Facts” page from Family Tree Maker Software showing multiple changes in residence and occupation.

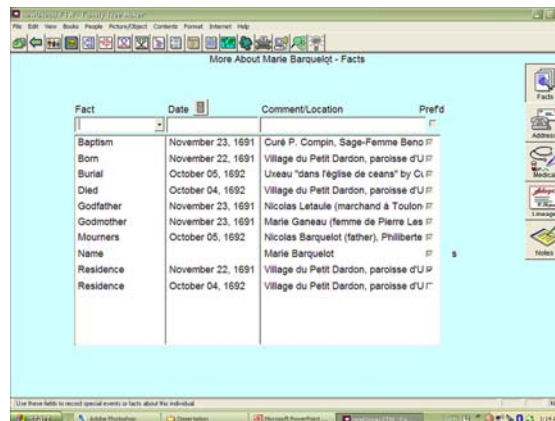


Figure 18. “Family” page from Family Tree Maker Software showing Godparents and Mourners categories.

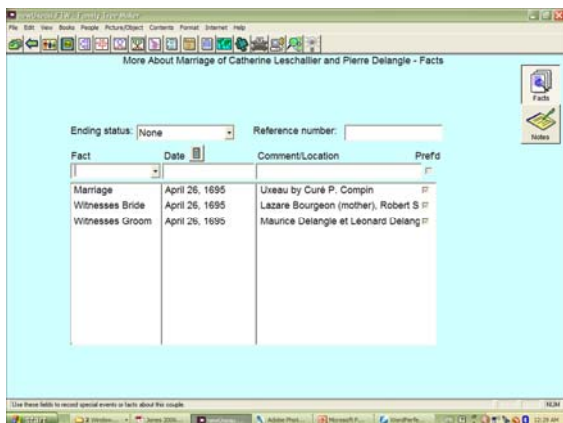


Figure 19. "Marriage Facts" page from Family Tree Maker Software showing marriage witnesses categories.

The software is designed to produce charts of family trees in many different formats (see fig. 20 and 21). An extremely useful feature of the program is the "Relationship Calculator," that automatically calculates the relationship between any two people you select in the database.

The software is also designed to produce reports, both in standard genealogical formats (see fig. 22) and customizable and sortable, based on any categories in the database. One standard report that is useful for our research is the "Kinship Report" (see fig. 23) that tells you how an individual is related to every other person in the database. A custom report that I created for our work was a Residence and Occupation Report for

all individuals in the database (see fig. 24). One can export all the reports to a spreadsheet seamlessly, thus allowing statistical analyses in a program like *Excel* or *Access*, and eventually the easy incorporation of the tables into the GIS database.

The program also has a notes page for recording text about an individual and allows attaching photos and video/sound clips (oral history information) to individuals in the database.

## 7 THE DECADE OF THE 1690S

To proceed with family reconstitution, it is necessary to begin with the oldest period for which documents are available and go forward in time. One reason for this is because many people have the same name and confusion can easily result in identifying individuals if one does not proceed chronologically. Extended family members such as cousins often have the same name, but in Uxeau there are also many cases of siblings having the same name due to the practice of naming the child after the godparent of the same sex. Thus if two brothers or two sisters happen to have godparents with the same first name, they will of necessity have the same name as each other.

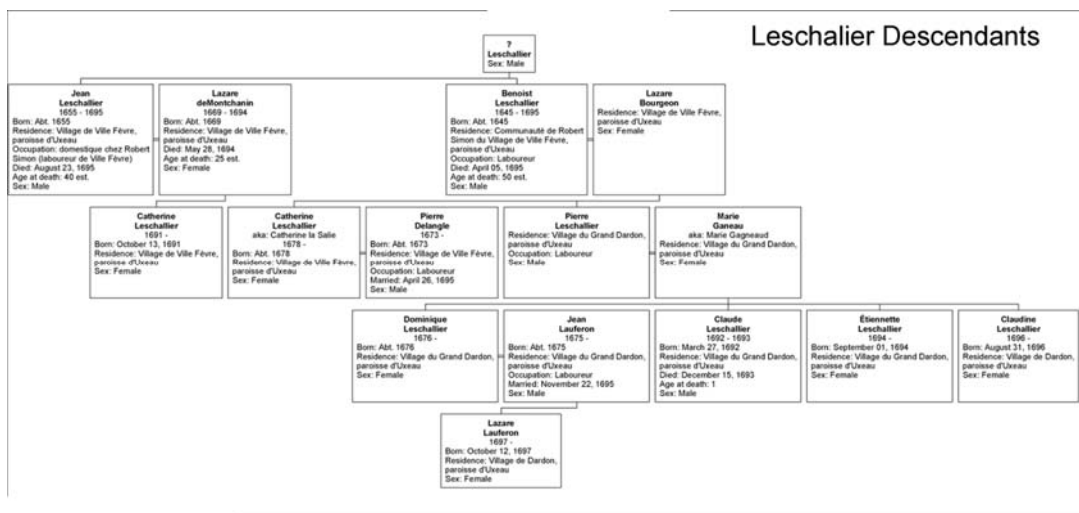


Figure 20. "Descendant Tree" from Family Tree Maker Software.

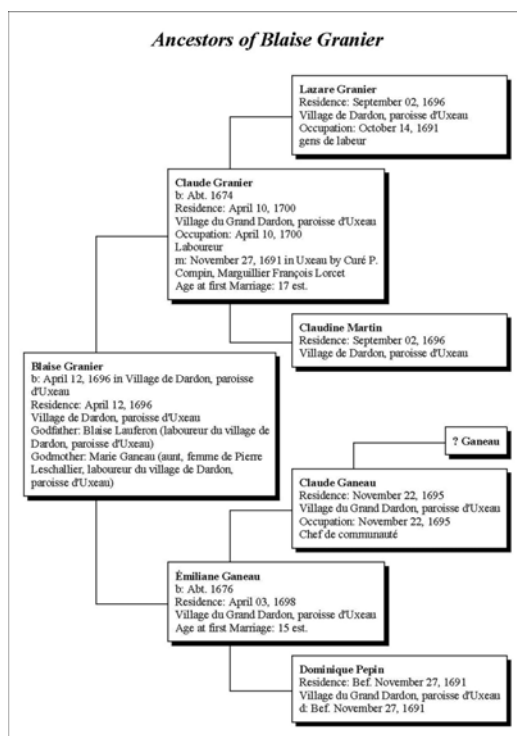


Figure 21. "AncestorTree" from Family Tree Maker Software.

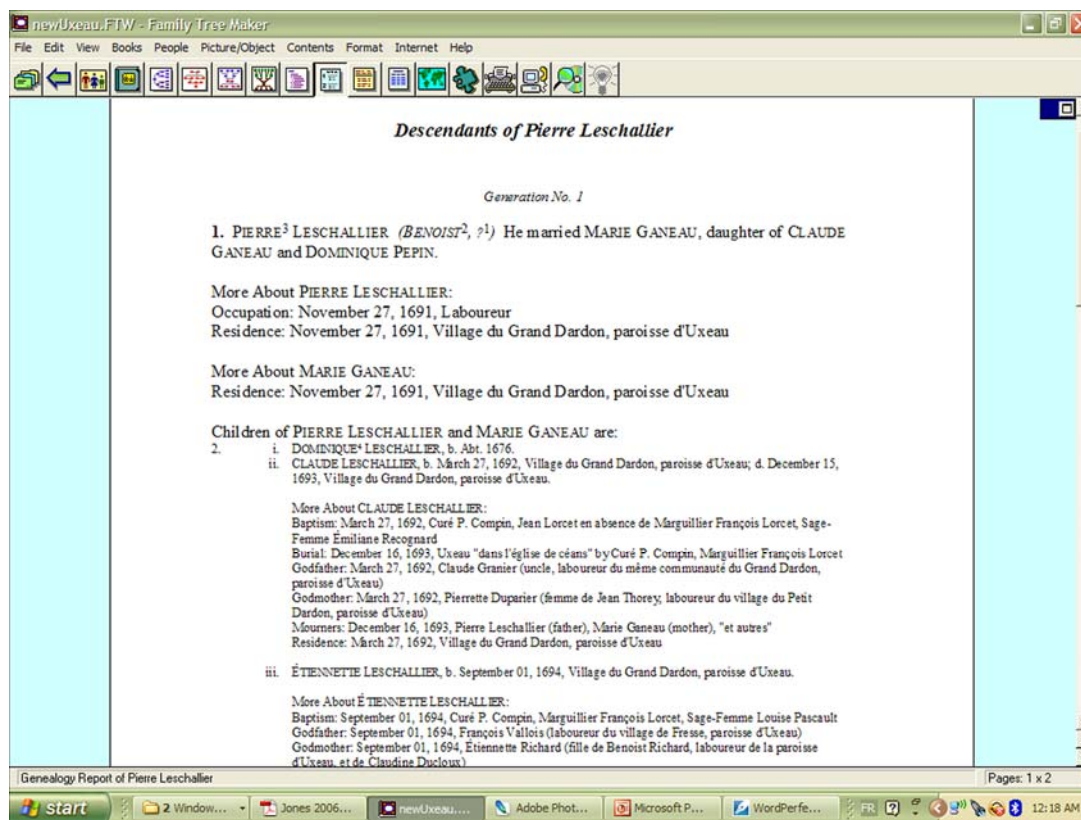


Figure 22. "Descendant Report" automated standard genealogical report from Family Tree Maker Software.

**Kinship of Benoist Leschallier**

Name	Relationship with Benoist Leschallier	Civil	Canon
Bourgeon, ?	Father-in-law		
Bourgeon, Catherine	Niece of the wife		
Bourgeon, Lazare	Wife		
Bourgeon, Léonard	Brother-in-law		
Delangle, Pierre	Son-in-law		
deMontchanin, Lazare	Sister-in-law		
Gagneaud, Marie	Daughter-in-law		
Ganeau, Marie	Daughter-in-law		
la Salle, Catherine	Daughter	I	1
Lauferon, Jean	Husband of the granddaughter		
Lauferon, Lazare	Great-granddaughter	III	3
Leschallier, ?	Father	I	1
Leschallier, Benoist	Self		0
Leschallier, Catherine	Daughter	I	1
Leschallier, Catherine	Niece	III	2
Leschallier, Claude	Grandson	II	2
Leschallier, Claudine	Granddaughter	II	2
Leschallier, Dominique	Granddaughter	II	2
Leschallier, Étienne	Granddaughter	II	2
Leschallier, Jean	Brother	II	1
Leschallier, Pierre	Son	I	1
Simon, Dominique	Grandniece of the wife		
Simon, François	Grandnephew of the wife		
Simon, Simonne	Grandniece of the wife		

Figure 23. “Kinship Report” automated report from *Family Tree Maker Software* showing how an individual is related to every other person in the database.

**Report**

Name	Residence cmt/loc	Occupation cmt/loc
Mongillard, Christine	Bourg d'Uxeau, paroisse d'Uxeau	
Mongillard, Claude	1: Bourg d'Uxeau 2: Bourg d'Uxeau 3: Bourg d'Uxeau 4: Bourg d'Uxeau 5: Bourg d'Uxeau 6: Bourg d'Uxeau 7: Bourg d'Uxeau 8: Bourg d'Uxeau 9: Bourg d'Uxeau 10: neighbor of Anne Battereau	1: Journalier 2: Journalier 3: Gens de labeur 4: "de present au service de sa maitre" 5: "soldat de malice" 6: Gens de labeur 7: Journalier 8: Journalier 9: Journalier 10: Journalier
Vaillaule, Jeanne	1: Bourg d'Uxeau 2: Bourg d'Uxeau 3: Bourg d'Uxeau 4: Bourg d'Uxeau 5: Bourg d'Uxeau 6: Bourg d'Uxeau 7: Bourg d'Uxeau	Journalier
Moreau, Benoiste	Village de la Malvelle, paroisse de Bessy	
Magny, Jean	Village de la Malvelle, paroisse de Bessy	Laboureur
Magny, (?)		
Guillemme, Joseph	Village de la Malvelle, paroisse de Bessy	Laboureur
Buisson, Gabrielle	1: Village du Petit Dardon, paroisse d'Uxeau 2: Village de Bessy 3: Village de Bessy 4: Village de Bessy 5: Village de Dardon, paroisse d'Uxeau	Journalier

Figure 24. Custom Residence and Occupation report created with *Family Tree Maker Software* showing the residence and occupation for every individual in the database over time.

The oldest complete records I had for Uxeau were for the decade of the 1690s, so I began my research with that ten-year period. This decade was especially interesting to me for a couple of reasons. One was that it was far older than any of the other types of historical data we had (our earliest map is 1759, our earliest tax records are 1791, and detailed agricultural reports did not appear until well into the 19<sup>th</sup> century). I was eager to discover what kind of land-use data I might be able to extract for a period in which we had no other documentary data.

Another point of interest was that at this period the modern commune, which consists of both lowland river plains areas and upland hill country around Mont Dardon, was divided into two separate parishes—Bessy the lowland parish and Uxeau the upland parish—but in the 1690s the parishes had recently been combined under the same priest who recorded events in both parishes but kept the records distinct from each other (see fig. 25).

Yet a third factor that makes this decade interesting was that it was the coldest decade of the entire “Little Ice Age” and saw wild fluctuations in weather patterns.<sup>24,25</sup> This resulted in the last great famine in French history in the years 1693-94 (see fig. 26).<sup>26</sup>

Because the people in Uxeau survived these crisis years far better than most in the surrounding region,<sup>27,28</sup> anything I could uncover about their

land-use and farming strategies during this dire period would be of great interest for our overall reconstruction of the historical ecology of this area and could inform models of resilience and sustainability.

## 8 LAND USE PATTERNS FROM THE PARISH RECORDS

Patterns in land-use from mapping people’s occupations on the countryside did emerge, and these patterns are very different from the kinds of patterns seen today, even though farming still predominates. All of the places, mostly farms, listed in the 1690s registers still exist on the map today except for one (see fig. 27). Bazin, the hamlet that disappeared, was the only one that did not contain any farmers. It was the site of several families of craftsmen, including stone masons, oil producers, wool carders and weavers.

From the occupational and residential information in the Parish records I was able to determine which places were the site of large communal farms and which were individual farms or other types of hamlets. The parish consisted of 17 communal farms or *communautés*, 10 non-*communautés* (4 small family farms, 2 villages, 3 mill sites, one industrial hamlet) (see fig. 28).

Growing grain was the main farming activity and essential for subsistence—most of the grain was consumed on the farm itself and locally. Mills had to be plentiful because wagons were few—groups of neighbors often shared a single wagon—and the roads—or dirt tracks—were not conducive to transporting the grain any distance. The mills in Uxeau were all along a certain elevation or fall line (see fig. 29). Through survey and later historical maps we have discovered many more mills in the Commune than were reflected in the parish records, but the parish records tell us which ones were in operation in the 1690s.

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<sup>24</sup> Emmanuel Le Roy Ladurie, *The Ancien Régime: A History of France 1610-1774*, translated by Mark Greengrass (Cambridge, Massachusetts: Blackwell Publishers, 1996), 214.

<sup>25</sup> Emmanuel Le Roy Ladurie, *Canicules et Glaciers (XIIIe-XVIIIe Siècle)*, Histoire Humaine et Comparée Du Climat, volume I (Paris: Librairie Arthème Fayard, 2004), 473.

<sup>26</sup> Brian Fagan, *The Little Ice Age: How Climate Made History 1300-1850* (New York: Basic, 2000), 155.

<sup>27</sup> Marcel Lachiver, *Les Années de Misère: La Famine Au Temps Du Grand Roi, 1680-1720* (Paris: Librairie Arthème Fayard, 1991).

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<sup>28</sup> W. Gregory Monahan, *Year of Sorrows: The Great Famine of 1709 in Lyon* (Columbus, Ohio: Ohio State University Press, 1993).

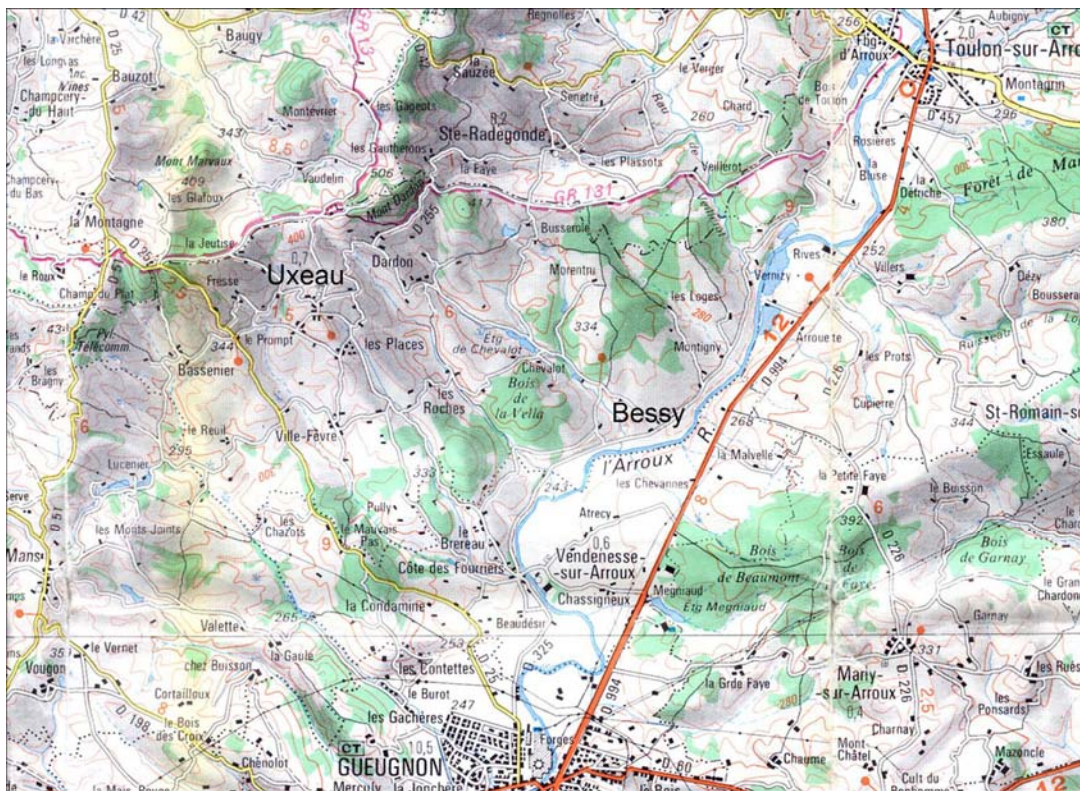


Figure 25. Map showing uplands around Uxeau and the lowlands of Bessy along the Arroux River

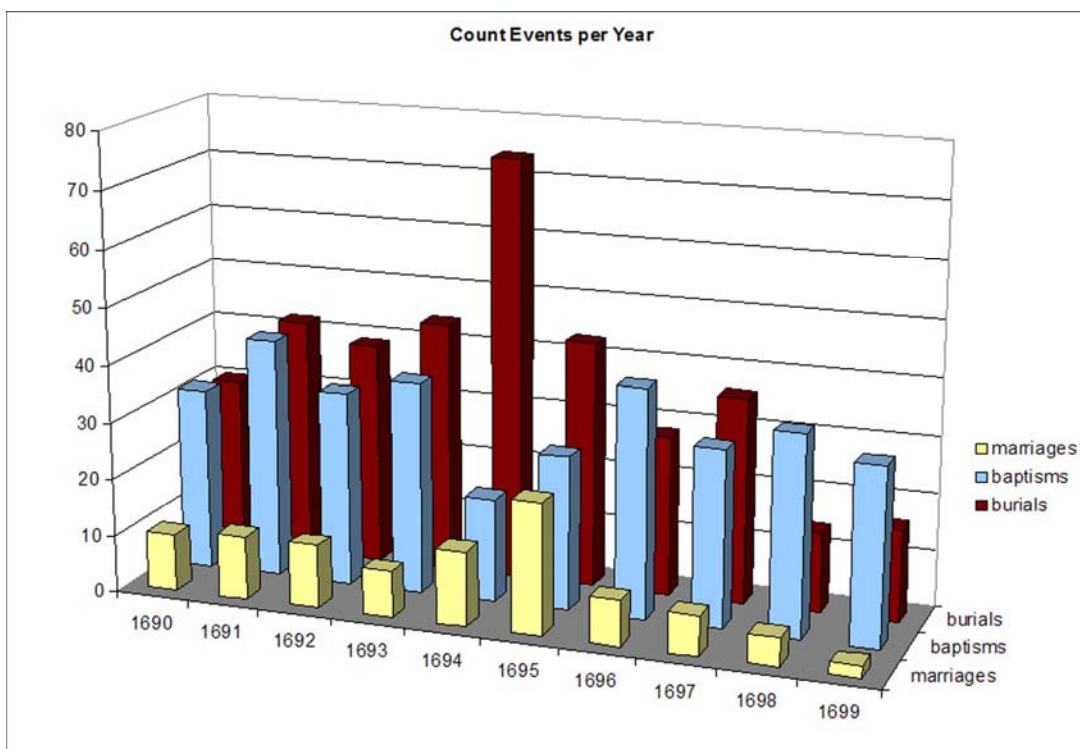


Figure 26. Chart showing count of vital events in Uxeau/Bessy surrounding the great famine of 1693-1694.

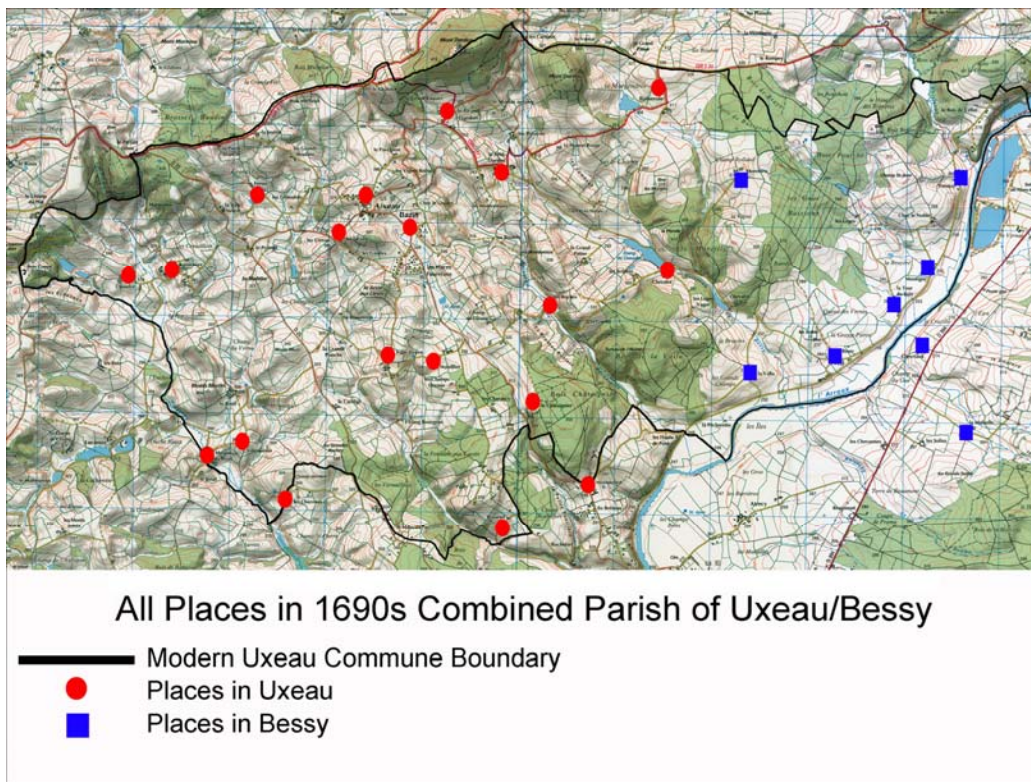


Figure 27. Map showing all residences in Uxeau and Bessy 1690s parishes.

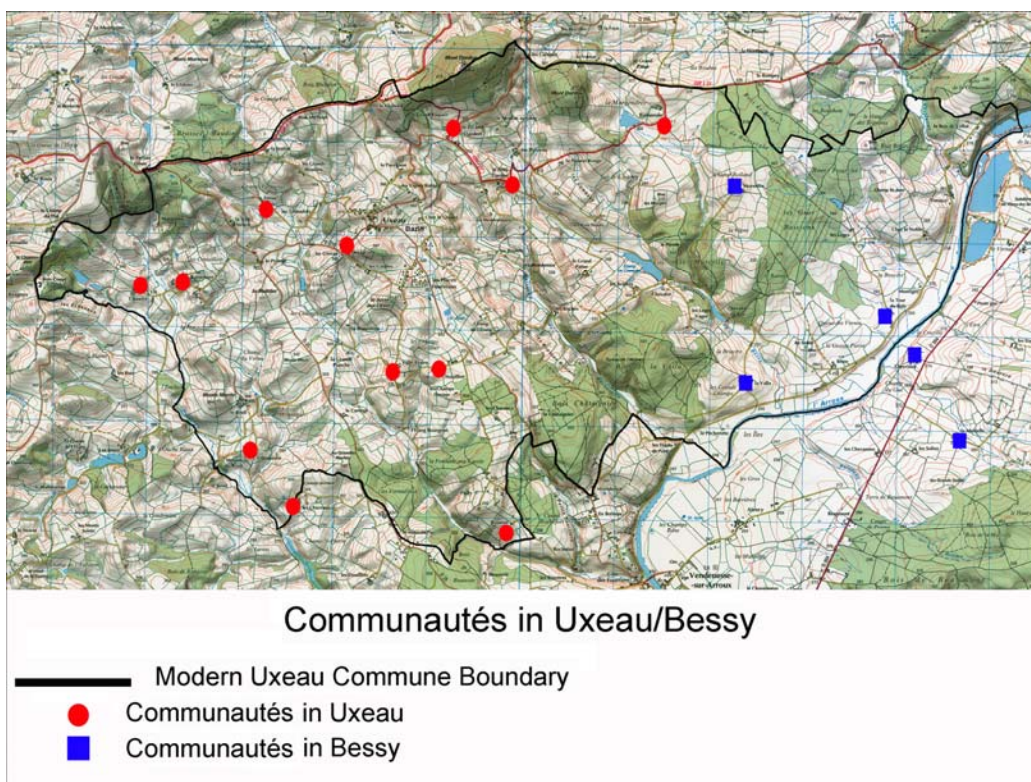


Figure 28. Map showing *communautés* in Uxeau and Bessy 1690s parishes.

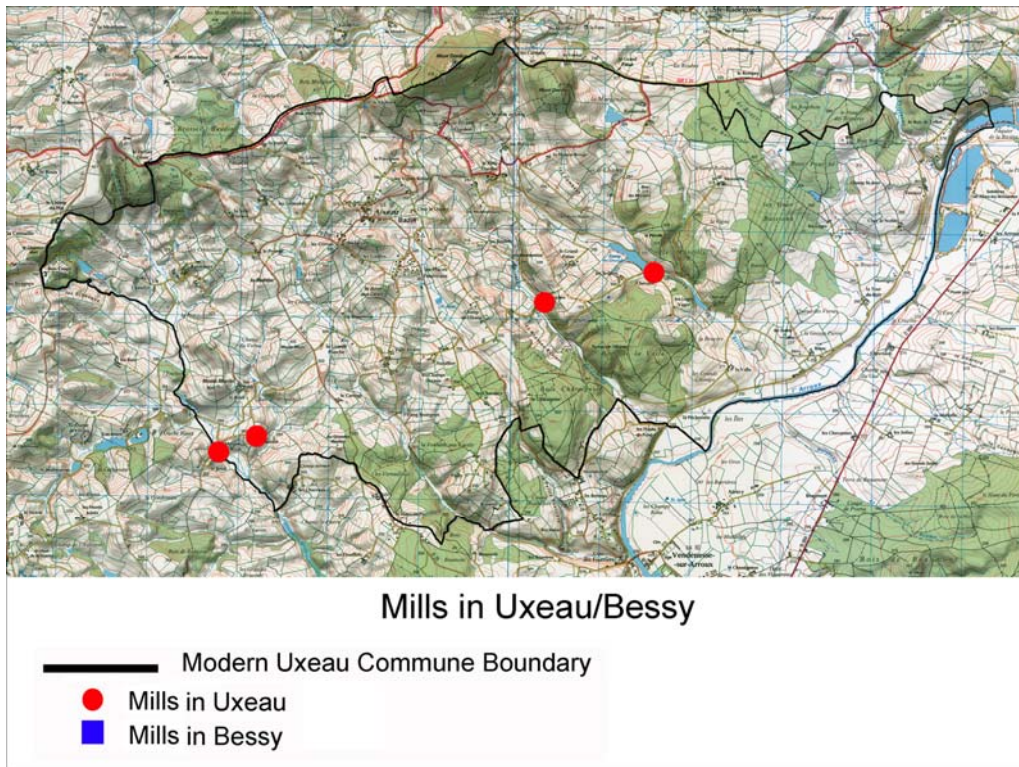


Figure 29. Map showing mills in Uxeau and Bessy 1690s parishes.

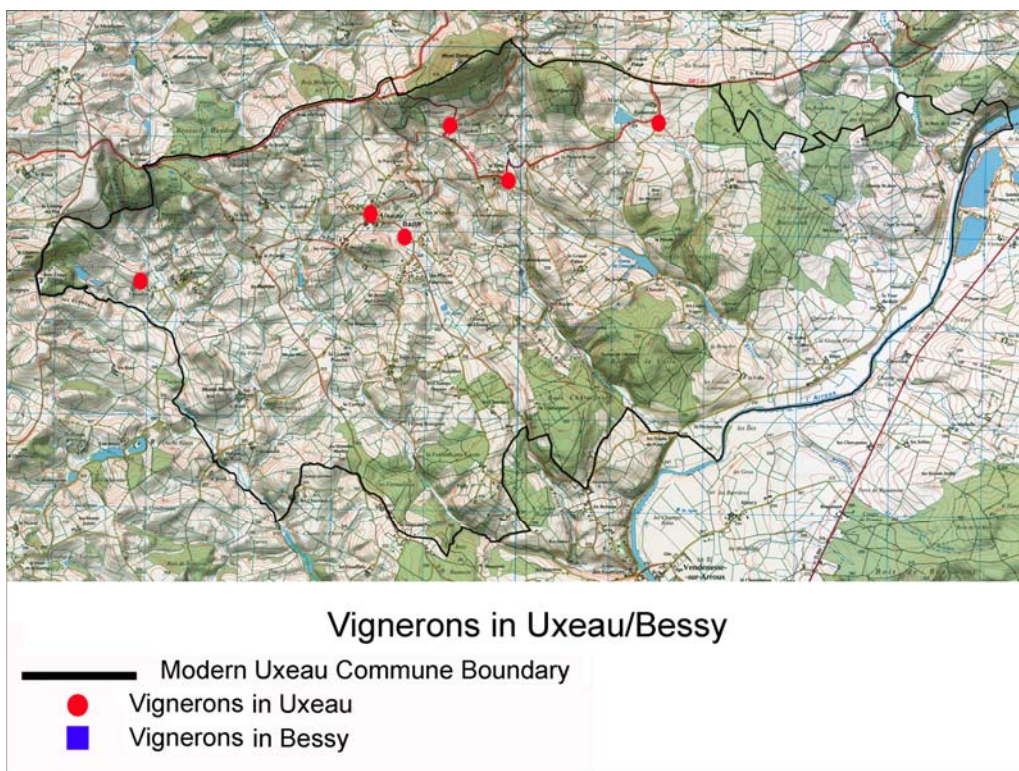
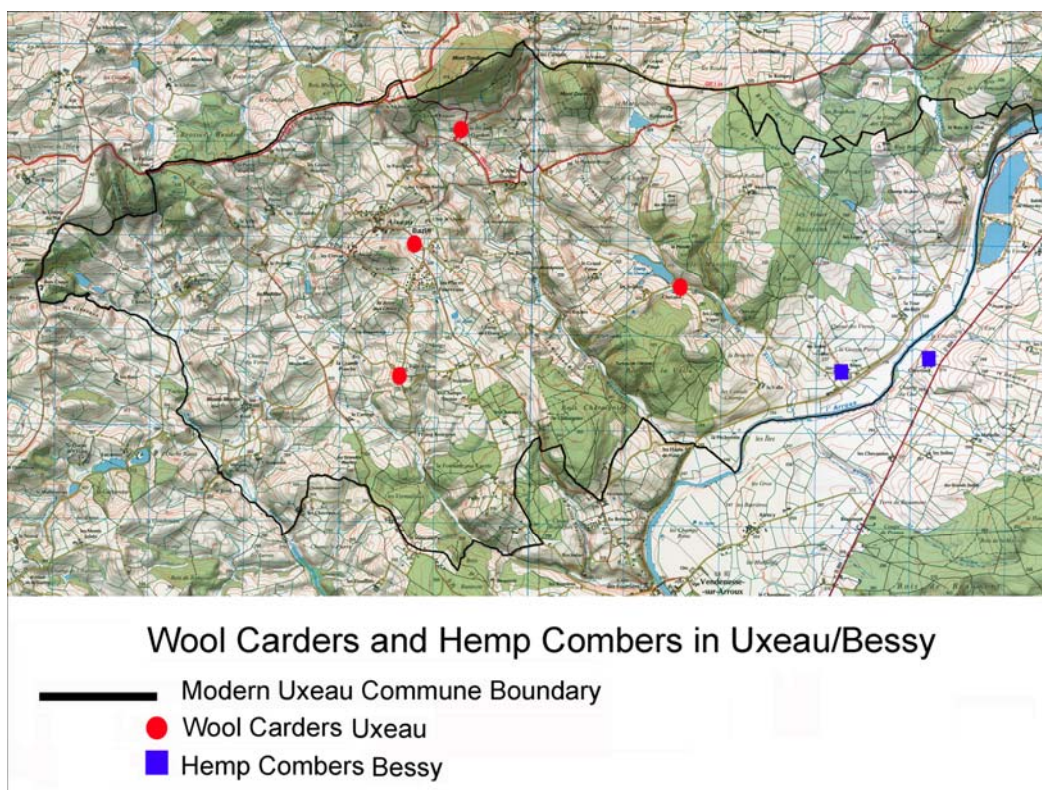


Figure 30. Map showing residences of winegrowers in Uxeau and Bessy 1690s parishes





**Figure 31.** Map showing residences of wool carders (Uxeau) and hemp combers (Bessy) in Uxeau and Bessy 1690s parishes.

Vineyards are also all at a similar elevation along the well-drained slopes below Dardon (see fig. 30). Most vineyards were also sharecropped.<sup>29</sup> There were no wine growers in the lowlands of Bessy.

In order to maintain the fertility of the fields, animal manure was absolutely essential. Animals were allowed to graze on the stubble and fallow fields. As they grazed, there worked their manure into the soil.<sup>30</sup>

It was also essential to raise some kind of home-grown fiber for clothing.<sup>31</sup> Sheep served for both manure & fiber in the uplands where they could also graze on the steep and rocky land unsuitable for farming. Hemp and the fattening of retired plow oxen for eventual sale to the towns for meat served those purposes in Bessy (see fig. 31).

At that time, ten hectares of land (or about 25 acres) would require a single plow team consisting of two men and 6 to 8 oxen (see fig. 32).<sup>32</sup> A fairly large farm would need at least 3

<sup>29</sup> Thomas Brennan, *Burgundy to Champagne: The Wine Trade in Early Modern France*, The Johns Hopkins University Studies in Historical and Political Science, 115th Series (Baltimore and London: The Johns Hopkins University Press, 1997), 19.

<sup>30</sup> Hugh D. Clout, *The Land of France 1815-1914*, The London Research Series in Geography (London: George Allen & Unwin, 1983), 94.

<sup>31</sup> Pierre Goubert, *The French Peasantry in the Seventeenth Century*, translated by Ian Patterson (Cambridge, UK: Cambridge University Press, 1986), 143-144. Originally published in French as *La vie quotidienne des paysans français au XVIIe siècle* 1982 by Hachette, Paris.

<sup>32</sup> John W. Shaffer, *Family and Farm: Agrarian Change and Household Organization in the Loire Valley 1500-1900*, Suny Series on European Social History (Albany, New York: State University of New York Press, 1982), 140.

plow teams or 6 men and 18 to 24 oxen. Each year the eldest pair of oxen was sold off to be fattened by the *emboucheurs* (literally “fatteners”) for sale in the town markets. People in upland Uxeau would have sold their oxen to *emboucheurs* in Bessy where they could fatten up on the rich lowland meadows and fields.



**Figure 32.** Turn-of-the Century postcard of plow team in the research area.

## 9 ECOTYPES

These maps derived from parish record information show two distinct ecotypes existing in 1690 which do not exist today.

An *ecotype*<sup>33</sup> encompasses:

- the local environment and its range of available resources,
- the particular resources that are extracted and the type of technology for doing so,
- the sociocultural institutions for instituting and organizing the family as an integrated work force
- the local relations between peasant farmers and non-peasant groups (e.g. the nobility, village tradesmen and craftsmen, day-laborers, etc.)

<sup>33</sup> Michael Mitterauer, "Peasant and Non-Peasant Family Forms in Relation to the Physical Environment and the Local Economy," *Journal of Family History* 17, no. 2 (1992): 142-143.

- the interrelations between groups exploiting different resources within the same environment
- and the relations of the local area to outside areas which include transportation networks, settlement patterns, and the macro- political and economic systems.

These two different ecotypes might have been guessed at by merely looking at the topographical map showing the lowland and highland areas. Yet today there is no highland-lowland difference—pastoralism is universal with the raising of Charollais beef cattle as well as sheep and goats (see fig. 33). The land in both the Uxeau and Bessy areas is covered with pastures and fodder crops such as hay and corn. And there are no longer any vines in the area. There is no discernable difference in the land-use between the Uxeau and Bessy areas of the Commune.



**Figure 33.** Charollais cattle in Uxeau. Raising Charollais cattle is today the main economic activity in both the Uxeau (upland) and Bessy (lowland) areas of the modern Commune of Uxeau.

The upland-lowland difference in the 1690s is all the more striking because these occupations have been mapped to the people’s residences not the plots of land they actually farm. Because the majority of the farmers were sharecroppers, and leased land from various owners, the plots of land they farmed were not contiguous, but spread out over the Commune and beyond. Thus there is no reason why a person in Bessy could not sharecrop a vineyard in Uxeau or why a person in Uxeau might not be sharecropping a hemp field in Bessy. However, this is never the case. Additionally,

while the greater part of the land was sharecropped, individuals in the *communautés* did own small plots of land themselves, but this land too, was rarely located near the residence, for reasons that will be explained below.

## 10 SPATIAL PATTERNS OF SOCIAL RELATIONSHIPS

A spatial segregation similar to the economic segregation is seen in all types of social relationships between Uxeau and Bessy even though the people lived side-by-side in close proximity to each other (the combined parish of Uxeau and Bessy is only about 33 sq. kilometres in area) and they shared a priest in common.

Social ties were directly reflected on the landscape because land was hardly ever obtained through purchase. Land was almost exclusively transferred through inheritance and marriage dowries,<sup>34</sup> and thus if you marry and find godparents from within your parish, all your landholdings will be there too. The landholdings of a farm in this period were an exact mirror of its social relationships.

This common separation in both social relationships and land-use might be expected if the recently separate parishes Uxeau and Bessy followed the predominant pattern in France at the time of marrying within one's own parish and finding godparents among one's nearby neighbors and relatives.<sup>35</sup>

But as you can see from Figures 34 and 35, marriages and godparent relationships in Uxeau did not follow the predominant pattern in France. They often found marriage partners and godparents in another parish.

<sup>34</sup> Beatrice Gottlieb, *The Family in the Western World from the Black Death to the Industrial Age* (New York and Oxford: Oxford University Press, 1993), 201-202.

<sup>35</sup> Pierre Goubert, *The French Peasantry in the Seventeenth Century*, translated by Ian Patterson (Cambridge, UK: Cambridge University Press, 1986), 67.

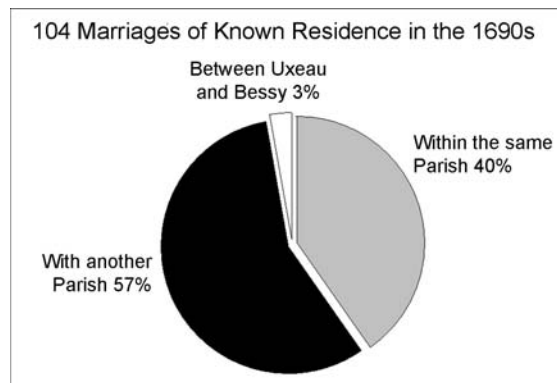


Figure 34. Marriage alliances in Uxeau and Bessy from the 1690s parish registers.

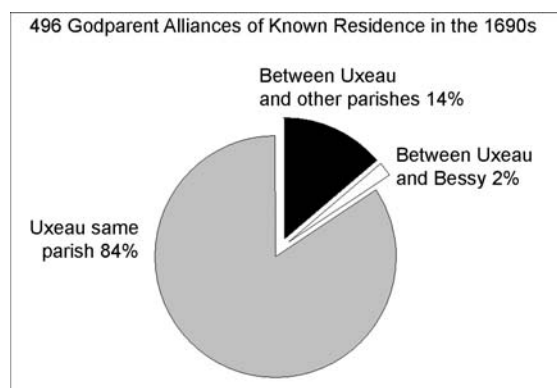


Figure 35. Godparent alliances in Uxeau from the 1690s parish registers.

## 11 SOCIOECONOMIC STRATEGIES IN SOCIAL ALLIANCES

Marriage and godparent alliances at this time were as much economic as they were social relationships. Marriage alliances were a way to increase family wealth by bringing in either land (with the groom) or cash, livestock and moveable goods (with the bride).<sup>36</sup> For sharecropping families who did not own much land or individual moveable goods, the added labor that marriage brought in was usually more important than the dowry because it allowed the farm family to take on larger sharecropping contracts. Labor was so

<sup>36</sup> Olwen H. Hufton, *A History of Women in Western Europe, Vol. 1: The prospect before her (1500-1800)* (New York: Knopf, 1996), 72.

important that the *chef de communauté* (instead of the parents) arranged all marriages on his farm.<sup>37</sup>

The godparent/child relationship was chiefly economic too. Children were frequently orphaned, and the godparents would then be obligated to see to the raising of the child. Even if the child was not orphaned, a godparent was expected to help the child financially in several ways such as contributing to a marriage dowry, or helping a young person to find good employment.<sup>38</sup>

In the 1690s, a period of climatic upheaval, exorbitant taxes, and epidemic disease, people in both Uxeau and Bessy often established marriage and godparent relationships outside their home parish. This is a pattern that is entirely different from most of France at the time, and also different from more recent time periods in Uxeau.

Ties beyond the parish worked to mitigate risk by creating far flung alliances that could be called upon in time of need. If crops failed locally, they might be somewhat less affected elsewhere (e.g. thunderstorms) and distant in-laws or a godparent could come to the family's aid.

Importantly, if a large communal farm lost their sharecropping contract because they did not produce enough, instead of being homeless (the house and farmstead were a part of the sharecropping contract<sup>39</sup>), they could move to the sharecropping farms of in-laws or other relatives where their additional labor would be welcomed. Several entire large *communautés* actually did change residence, moving to the *communautés* of relatives and in-laws during the 1690s.

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<sup>37</sup> Pierre Goubert, *The French Peasantry in the Seventeenth Century*, translated by Ian Patterson (Cambridge, UK: Cambridge University Press, 1986), 76.

<sup>38</sup> Olwen H. Hufton, *A History of Women in Western Europe*, Vol. 1: *The prospect before her (1500-1800)* (New York: Knopf, 1996), 72-73.

<sup>39</sup> Lutz K. Berkner and John W. Shaffer, "The Joint Family in the Nivernais," *Journal of Family History* 3, no. 2 (Summer 1978): 156.

Because marriages and godparent alliances outside one's own parish are common here and serve to mitigate risk, it is difficult, then, to understand the dearth of these kinds of relationships between Uxeau and Bessy. It was not unusual for people in Uxeau to skip over Bessy and find a marriage partner in a Parish on the far side of Bessy. For Uxeau and Bessy the trend is that social relationships are either within their own parish, or with an outside parish, but not between each other.

## 12 Explanatory Power of Ecotype

Differential land use and the concept of Ecotype can explain this situation. Everyone in Uxeau and Bessy grew grain, and most people lived on large communal farms, yet most farms had to have activities in addition to growing grain to bring in additional income to pay taxes, tithes and rents, and as a guard against crop failure. The segregation in these other economic activities stemming from differences in the landscape seems to have caused the people in Uxeau and Bessy to travel in different social worlds that did not intersect. Alliances might be formed with people in other parishes but they were with people that followed similar economic activities such as raising sheep, fattening cattle, or growing vines.

The difference in ecotype caused by the differential extraction of resources from the environment in this period channeled the social relationships and also deterred the sharecropping contracts from crossing these spatial lines.

## 13 Family Reconstitution Related to Other Land Use Records

Although this "family reconstitution" was done only for a short period of 10 years (the decade of the 1690s), the study has revealed much about the land-use and social networks in Uxeau. The plan is to continue the research through the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries. This will clarify complicated land-owning patterns we see in the later land-use records such as the example of a small pond

located next to one of the communal farms (Fresse) in Uxeau in the year 1866.

From the 1834 cadastral map you can see that this pond (parcel # 478) is fairly small in size—less than 1 hectare (see fig. 36), but it has 11 co-owners, 3 of whom live at the farm itself, 4 of whom live at other farms in the Commune and 4 of whom live outside the Commune in widely dispersed towns (see fig. 37). The number of owners indicates that this pond was a very valuable resource on the landscape. You would never guess this from archaeological survey alone—it is little more than a mud-hole today (see fig. 38).



**Figure 38.** Photo of pond at Fresse taken in 2008 field survey.

From oral history research project members have conducted, we assume that the pond was used to raise fish that were then sold all at once when the pond was periodically drained. Once the genealogical research is complete we will understand relationships like these between the 11 owners of the pond, and can better understand the land-use strategies in general.

In the nineteenth century, census data could be substituted to more easily determine the make-up of households and tie owners of parcels in the tax records to specific farms. Even so, the census data alone cannot give the detail about extended family relations, employer/employee relationships, and godparent alliances that the civil records can provide through family reconstitution. Thus it will be necessary to combine family reconstitution with the census data.

Once a farm's holdings are reconstructed and the social network is understood, we can then look at differences in land-use strategies, such as differences between the land-use strategies of large communal sharecropping farms, elite manors, and small family-owned farms.

## 14 SUMMARY

- The Historical Ecology Perspective holds that social relations are essential for understanding the patterns of land use and the strategies behind it.
- The concept of Ecotype is a useful way to conceptualize the dialectical relationships between environment, economy and society.
- At the local scale (e.g. individual farm and parcel), data on land use and social networks can be difficult to find for early periods.
- Parish registers (later civil registers) of baptisms/births, marriages and burials/deaths have the potential to provide detailed information on social networks and actual land use.
- Genealogy software such as *Family Tree Maker* can be used for the method of “family reconstitution” to determine household composition and trace extended family relations over time for an entire parish or commune.
- The *Family Tree Maker* software can be easily customized to record facts about occupation/land use, residence/farms, and peripheral social relationships such as godparents, employers, neighbors, landlords, etc.
- The reports generated from the *Family Tree Maker* software can be easily customized and exported to an Excel spreadsheet or Access database for statistical analyses and incorporation into a GIS database.

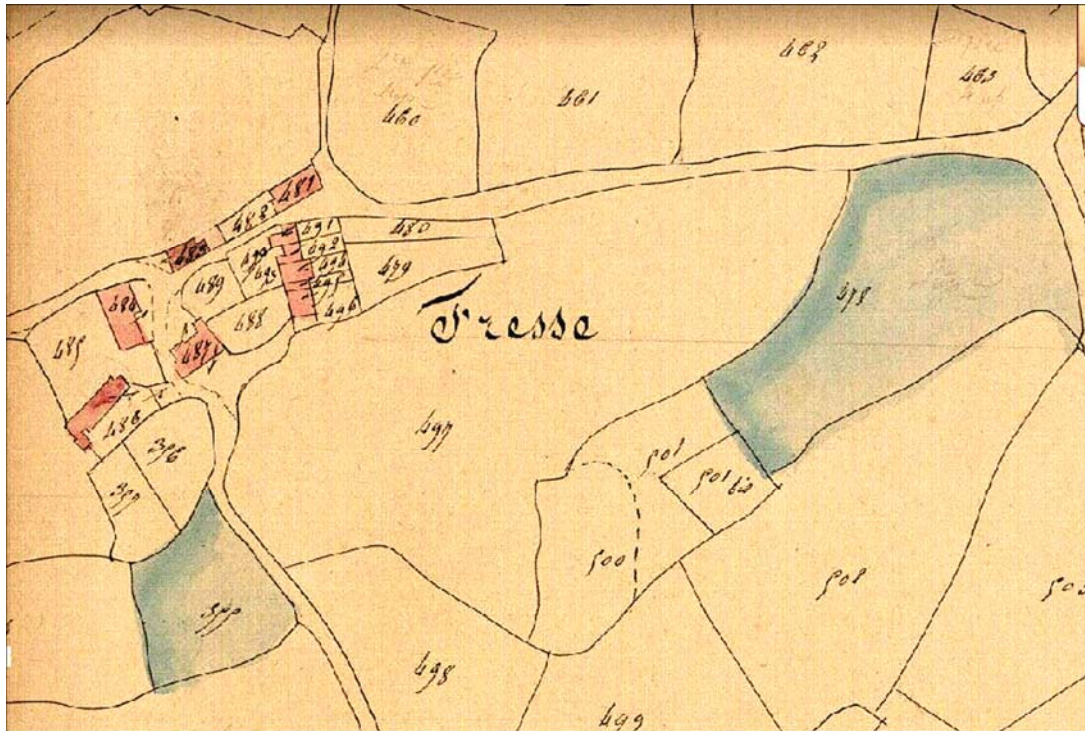


Figure 36. 1834 Cadastral map of Uxeau showing small pond to the east of the communal farm of Fresse.

1866 États de Sections des Propriétés Non Bâties et Bâties  
Commune Uxeau, Canton Gueugnon, Arrondissement Charolles, Département Saône-et-Loire  
L'arpent métrique vaut 8 Boisselées 774/1000 mesure locale (la boisselée vaut 11 ares 39 centares mesure metrique)

Name of proprietor	Habitation	1834 Section letter	1834 Parcel number	Place name	Land Use	Hectare	Are	Centare
Montmorillon (de), Saladin Louis Léopold, Marquis	Lucenier	A	22	Étang de Chazelot	étang		81	20
Bassenier le Hameau	Bassenier	A	81	l'Étang	étang		21	10
Sommant, Jean François	à Bassenier	A	110	Étang des Noyers	étang		21	90
Gravier, Jean, les héritiers	à Fresse	A	355	Petit Étang de Fresse	étang		21	50
Châlon, Blaise, les héritiers	à Vaudelin d'Issy l'Évêque	A	355	Petit Étang de Fresse	étang		1	70
Sotty, Valentin	à la Chapelle-au-Mans	A	355	Petit Étang de Fresse	étang			80
Sotty, Émiland	à Uxeau	A	355	Petit Étang de Fresse	étang			80
Châlon, Étienne	à Fresse	A	355	Petit Étang de Fresse	étang			70
Rosier, Gabriel	à Fresse	A	355	Petit Étang de Fresse	étang			70
Baudin, Antoine	aux Triboulots	A	355	Petit Étang de Fresse	étang			30
Gravier, Jean, les héritiers	à Fresse	A	478	Étang de la Boudure	étang		25	90
Blochet, Louis, la Veuve	à St Christophe	A	478	Étang de la Boudure	étang		10	80
Sotty, Valentin	à la Chapelle-au-Mans	A	478	Étang de la Boudure	étang		4	30
Sotty, Émiland	à Uxeau	A	478	Étang de la Boudure	étang		4	30
Châlon, Blaise, les héritiers	à Vaudelin	A	478	Étang de la Boudure	étang		8	70
Châlon, Étienne	à Fresse	A	478	Étang de la Boudure	étang		8	70
Rosier, Gabriel	à Fresse	A	478	Étang de la Boudure	étang		8	70
Baudin, Antoine	aux Triboulots	A	478	Étang de la Boudure	étang		6	50
Lauféron, François, les héritiers	au Grande Dardon	A	478	Étang de la Boudure	étang		4	30
Desfraises, Jean	à Gueugnon	A	478	Étang de la Boudure	étang		2	20
Danon, François	au Chevalot	A	478	Étang de la Boudure	étang		2	20

Figure 37. List of eleven owners of pond parcel # 478 (in pink) at Fresse from 1866 États de Sections.

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## Acknowledgements

The author wishes to thank the Institut Géographique National and the Archives Départementales de Saône-et-Loire for their kind permission to portions of their maps. The author acknowledges her deep debt for the inspiration and support from her fellow researchers, friends, and mentors Dr. Carole Crumley, Dr. Scott Mady, Dr. Amanda Tickner and Dr. Dennis McDaniel. Many thanks are also due to the Mairie of Uxeau for access to their records and to the people of Uxeau, past and present, for their overwhelmingly generous acceptance, interest and support.

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