Today, I would like to share with you some of my experiences as the recipient of a Chateaubriand Humanities and Social Sciences (or HSS) Fellowship. While I cannot say that I received the fellowship from the onset to complete either multisensory or multispecies research in the eastern winegrowing region of Alsace, France, it is because of having received this funding that I was able to return to Alsace for my third and final time to complete my dissertation research from January-April 2019. By that point, I had incorporated multisensory methodologies and began to understand my experiences in multispecies terms. Indeed, the support I received for this longest portion of my work through Chateaubriand allowed me to pay attention to emergent, important relationships between and among humans and the more-than-human natural world.

As such, I will provide a brief overview of my research and its relationship to the Chateaubriand Fellowship, which I surmise was a particularly successful funding source given its very specific attention to climate-related research during the 2018-2019 application year. With my remaining time, I will share what I was able to accomplish as a Chateaubriand Fellow and the larger themes that emerged from my time in Alsace, with particular regard to social-ecological systems thinking, multisensory approaches, and multispecies relationships. I conclude then with potential routes for further developing intentional methods for future multispecies work with community partners.
To give you some context, my project began with a question that arose from my reading of Eric Duchêne and Christophe Schneider’s work on a warming trend experienced over a 20-year period in Alsace: if the warming vineyards in the eastern French winegrowing region of Alsace are no longer hospitable to cold-weather grapes like Gewurztraminer and Riesling, what does this mean for the identities of the people and places who produce and consume these products? And, concurrently, to what extent is this even a concern at all?

Terroir

- The confluence of soil, climate, and overall environment, as well as the local know-how and training of people, to produce spatially-located foodstuffs with distinctive nuances in both quality and taste (Aurier et al., 2005, Barham 2003, Paolisso 2007)
- Goût du terroir as the “taste of place” (Trubek 2008, 2)

At the root of this inquiry is the French terroir concept, which I have defined as “the confluence of soil, climate, and overall environment, as well as the local know-how and training of people, to produce spatially-located foodstuffs with distinctive nuances in both quality and taste” (Aurier et al., 2005, Barham 2003, Paolisso 2007). Simply put, the goût du terroir or the “taste of place” (Trubek 2008, 2) matters because it provides a sense of place-based identity for those who produce those foodstuffs. And so, if the environment changes because of climate change, how does that subsequently affect the identities of the grapes, wines, and winegrowers linked to the place in which all three are produced?

Research Questions

- What changes do winegrowers perceive in their winegrowing landscapes?
- How do they adapt to changes in winegrowing conditions?
- How do changes in winegrowing practices change conceptions of terroir?

Taking many steps back, I sought to address three questions, as I spoke with over two dozen winegrowers representing 19 different vineyards from eastern France and central Ohio, as well as their family members and volunteers, about perceived and actual threats of climate change on their livelihoods and the grapes in their care:

1. What changes do winegrowers perceive in their winegrowing landscapes?
2. How do they adapt to changes in winegrowing conditions?
3. How do changes in winegrowing practices change conceptions of terroir (or more generally in the U.S. context, the taste of place)?
Funding for the third and longest phase of my research was made possible through the Chateaubriand Fellowship program. The program is divided into two subprograms, supporting research in the STEM fields of science, technology, engineering, math, and health, and another route in the humanities and social sciences. The STEM program is organized by the Office for Science and Technology of the Embassy of France, whereas the HSS program is run through the Culture Services of the Embassy. Both programs aim to support Ph.D. students from American universities who wish to conduct research in France for 4 to 9 months (or 8 in the case of HSS fellows).

- Additional information for the fellowship may be found here: [https://chateaubriand-fellowship.org/](https://chateaubriand-fellowship.org/)
As an aside, I perceive the success of my application in terms of its framing at just the right time. This begins with a mention of our current President’s call to “Make America Great Again.” In light of subsequent political decisions at various scales, President Emmanuel Macron of France responded in June 2017 with a call to “Make Our Planet Great Again.” In particular, he called for researchers all over the world to go to France to conduct research in three “prioritized” areas: earth system sciences, climate change and sustainability sciences, and energy transition.
2018-2019 Funding Cycle: A Unique Year

- Additional funding provided by the French government
- "Prioritized" research areas – 2 fellows each
  - Earth system sciences
  - Climate change and sustainability sciences
  - Energy transition

For Chateaubriand’s 2018-2019 funding cycle, the French government provided extra funding to select additional fellows whose research was related to the environment under the auspices of the MOPGA campaign. At the risk of sounding braggadocious, I want to insert that I received a full year’s worth of funding rather than the semester I asked for to complete my research on French wine and place-based identity in the midst of climate change. Who would have thought that the French care about their wine and that the stars would align so perfectly?
My time throughout France provides a strong comparative context for my central Ohio-based research on winegrowers’ understandings and responses to environmental changes, which are due to any number of forces including but not limited to climate, economics, and legislation. Through my sensorial, place-based research, I have become much more grounded and exposed to varied and embodied meanings of the terroir concept, which I draw on to develop a social-ecological model for analyzing contexts of change.

In my work, I conducted walking interviews, whereby I felt dry soils beneath my feet (compared to damp landscapes throughout central Ohio) and take in visual cues of vines at various stages and the relative lack of animal presence amongst the grapes. I also conducted semi-directed interviews where aural data can be heard over recordings. Slower to establish than in my experience with central Ohio winegrowers, I was fortunate to conduct participant observations at different stages of the winecycle. I could feel the resistance or reaction of vines to pruning, and take in gustatory and olfactory notes through tasting different vintages and varietals in the wine cellar and tasting room, as well as the grapes themselves out in the field during harvest to note their taste prior to further human intervention. In addition to more formal, scientific strategies for determining ripeness, some of the winegrowers pointed to their ability to determine readiness based on taste.
My initial visit to Alsace allowed me to establish a home base comprised of Alsace’s winegrowing capital of Colmar and the neighboring commune of Wettolsheim. At five of those sites, I completed initial walking and semi-directed interviews. I completed this step at my sixth site upon a short return visit the following October, where I also helped some winegrowers to harvest Gewurztraminer and Riesling, as well as another with the uncorking process for Alsace’s bubbly wine known as Crémant d’Alsace.

Having thus participated in these aforementioned summer and autumn later-winegrowing activities, the experiences as I had during my Chateaubriand spring allowed me to learn how the winegrowers I have worked with organize and prepare their vineyards at the start of the winecycle. This included learning how to “faire l’arcure,” the arching process of cordons that is emblematic to certain winegrowing regions such as Alsace. Among other experiences, I learned from, talked with others about, and participated first-hand in a tradition that is not only an example of the myriad ways that humans and nature interact, but also of how these practices are very much linked to place. In addition, I was able to visit vineyards outside of my home base, which added to the breadth and richness of my ethnographic data.
In the process of my research, I was able to identify three groups of actors or actants (per Latour 2004), as producers of sensory stimuli, which I specify in my work as human life, non-human life, and material objects. That is, grapes and vines are able to produce sensory stimuli that inevitably tell the winegrowers “something.” The visual markers of red or lack of foliage where there should be green indicates a sick vine, while the presence of *esca*, a fungus, indicates doom as it eats away at the trunk of the vine. The presence of birds may be an indicator of ripeness, for fear of grape damage or loss if ready grapes are not harvested, and for which canons may be at the ready to try and scare them away. Weakened trellis wires that need mending or replacing signal an overabundance of last year’s crops, while dry soils align with the sense of drought throughout the region. The recognition of sensory stimuli produced by multiple actants coincides with an understanding that each actant is not only a participant of the system as a sensor and consumer of others’ stimuli, but also a worker that contributes to the production of place-based goods. Without them, the sense of place is in itself different and changed from what it used to be.

Across the Alsatian vineyard landscape, as well as what I have experienced throughout central Ohio, winegrowers have been noticing changes on both social and ecological fronts. Social changes include changes to winegrowing practices and the technology used to help with efficiency and time management, as well as the effects of a diversifying and ever-expanding global market. In terms of the environment, it is difficult to ignore warming temperatures – again, in a region where cool-weather grapes have long been dominant – which have affected when and how well grapes grow and develop. The heat also brings with it a greater frequency of disease and a loss of gustatory equilibrium.

<table>
<thead>
<tr>
<th>SOCIAL CHANGES</th>
<th>ECOLOGICAL CHANGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvesting at least month earlier than previous years</td>
<td>Earlier vine cycle</td>
</tr>
<tr>
<td>(considering past 20-30 years)</td>
<td></td>
</tr>
<tr>
<td>Use of electronic/automated equipment (pruners, etc.)</td>
<td>Increased instances of drought</td>
</tr>
<tr>
<td>Customer demands (bio wines)</td>
<td>Dying/dead trunk (mainly with Riesling)</td>
</tr>
<tr>
<td>Entry into the global market</td>
<td>Greater frequency of disease (esca)</td>
</tr>
<tr>
<td></td>
<td>Missing equilibrium (too much sugar, less acidity)</td>
</tr>
</tbody>
</table>
Adapting to Changing Conditions

- Adaptations
  - Add tartaric acid
  - Grow vines every other row to promote nutrients, increase air circulation
  - Adjust leaf cutting to promote shade over grape clusters
  - Return to ancestral practices
  - Apply biodynamic principles
  - Experiment with clones and other varietals

- Constraints
  - Legislation (AOC, harvest limits, etc.)
  - Economy (competition, consumer demands)

- Also...
  - Talk of irrigation to combat droughts.
  - However, the winegrowers I spoke with are against this.

In response to perceived changes in their landscapes, winegrowers in Alsace are finding ways to adapt and innovate, though this is a process that certainly isn’t anything new. Today’s adaptive responses include altering the landscape itself, changing pruning methods, and experimenting with new varietals that are better adapted to the changing environment. In contrast to those in central Ohio, a major constraint are current naming laws that restrict what can be planted and harvested under legally-regulated conditions.

During my fieldwork, another area up for discussion was whether winegrowers should be able to irrigate in an attempt to address increasing instances of drought. In Alsace, irrigation is not currently permitted; those I spoke with were against the practice, which would potentially impact the quality of the grapes and affect the economic market.
Understanding Terroir

- Terroir is part soil, wind, sun, etc. (environmental components).
- There also very much exists a human component.
- The 7 Alsatian varietals remain important for the wine industry in Alsace.
- The capacity to exploit terroir potential is limited by changes in the system of production. It is necessary to adapt.

As I continue to discuss with winegrowers in Alsace, as well as central Ohio, terroir remains best understood at the confluence of both ecological and social interaction. A sense of place-based identity emerges from this environment-human relationship. Today, the Alsatian winescape is still linked to 7 specific varietals; that is, only seven are permitted to be labeled as being of Alsace, Gewurztraminer and Riesling included. As more warm-weather grapes such as Pinot Noir become better suited for the warming region, time will tell as to whether, and if so, how, humans will be able to accept them as being perhaps a new kind of Alsatian. Indeed, it seems that adaptation is part and parcel of maintaining place-based identity in the midst of climatic and other forms of change.
Dealing with climate issues is not just a human or human-nature endeavor, but as I have learned, a multispecies one that requires more-than-human approaches to understand where we are going. In terms of methods, I can envision future possibilities that more directly involve informants. For example, speaking with Alsatian winegrowers outside of an enclosed interview space allowed them to point out the fact that the general lack of bird damage could be attributed to the fact that vineyards are located far away from treelines. At the same time, their shared experience helped me to understand potential damage that could occur due to flocking species like European starlings – the little black dots visible in the right-hand photo, which create beautiful silhouettes in the air but can easily decimate a vineyard of ripened grapes that have not been picked.

From my perspective, citizen science and focus groups are two approaches that can help researchers with more-than-human studies. Examples may include the migratory tracking of birds and other wildlife, log books of insects and other pest pressures, and localized and regional rainfall totals, as well as community-based interviews winegrowers and their non-winegrowing neighbors about their experiences with wildlife and changing environments, which may allow for a facilitation of shared resources and mitigation strategies.
Alsatian Actants in Times of Change

- Alsatian winegrowing identity is linked in part to varietal, location, and tradition.
- The winegrowers I spoke with are rooted in specific spaces.
- Introducing innovations to the winegrowing landscape - inclusive of vineyards, wine cellars, and tasting rooms - is necessary.
- How and when should one act?
- Terroir, multisensory, and multispecies approaches allow for an analysis of changes in the identity of winegrowers (and other actants) and the products being produced during periods of change.

So, what might we be able to say for now regarding place-based identity for Alsatian actants?

- Vineyards and place-based wines are linked to the spaces from which they originate, sharing heritage, culture, and winegrowing practices.
- Alsatian winegrowers are rooted in these physical spaces. These spaces – or rather, places – are linked to one’s identity as a winegrower and are, at the same time, challenged by the evolution of social and ecological conditions.
- If the system is no longer able to function with permitted varietals (e.g., due to climate change), it is necessary to introduce innovations. These innovations will contribute to the evolution of identity in terms of place, wine, and person. This may include planting new varietals and redefining what is accepted as Alsatian per labeling laws (e.g., pinot noir); introducing new plants to help retain water or different methods to help keep vines cool as it gets hotter; or helping the vines to adapt themselves, as researchers like Geneviève Teil have suggested.
- The biggest question is whether or not it will be too late to introduce innovations. It is necessary to adapt, but how and when should one act?
- Terroir, multisensory, and multispecies approaches allow for an analysis of changes in the identity of winegrowers (and other actants) and the products being produced during periods of change.
Acknowledgments

- Funding Agencies
  - Embassy of France in the United States:
    - Humanities and Social Sciences “Make Our Planet Great Again” Chateaubriand Fellowship
  - The Ohio State University Department of Anthropology:
    - Elizabeth A. Salt Travel Award
    - Larsen Research and Travel Award
  - OSU Office of International Affairs
    - Academic Enrichment Grant

- L’Institut National de la Recherche Agronomique (Colmar)

- My Dissertation Committee

- The Winegrowers I have been fortunate to work with
Mark Anthony ARCEÑO, M.A.
arceno.1@osu.edu