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Reflective Essay

I wrote this research essay on antibiotic use in agriculture for my Historical Ecology class (ANTH 461) of Autumn 2017. Our prompt was to write an essay on “a historical ecological topic that addresses a contemporary human-environmental issue, with insights drawn from archaeological, historical, and ethnographic cases.” I found many interesting topics that fit the prompt in *The Best American Science and Nature Writing 2017*, compiled by Hope Jahren, such as urban rat populations or light pollution, and did preliminary research on the environmental effects of deforestation and runoff containing antibiotic resistance diseases, chemical fertilizers, or manure then narrowed the topic to antibiotic resistance after I read a very interesting article on the chicken seller Perdue. I knew the general topic of agriculture would definitely fit since it is a clear example of a human activity that has a huge impact on the environment. I used the bibliography and ideas of this paper to find other studies on antibiotic resistance on farms. I also used ideas from papers we read in class which had a more broad, anthropological focus on ecology and populations. We often discussed the ways human technology and culture can change and be changed by interactions with nature and in this case I discussed diseases and antibiotics specifically with a focus on how humans manage agricultural practices in ways that have profound impacts on our health.

Through this project, I became much more comfortable with searching for online databases on the UW libraries website and using them look for peer reviewed papers and journals. I learned that it requires a lot of patience to keep searching with different keywords, and sift through a lot of sources that may not be relevant before finding a source that contains useful

information. I wanted to include government statements as primary sources but they were sometimes difficult to understand, so I consulted many different sources talking about their implications while referring back to the original writing to get the main idea of what they meant. It was hard work to look up the source an author used to make a statement and read the original study to get more information and actual data, not just the paraphrased results. Sometimes it is daunting when I need to do extra research to see where a fact came from, but ultimately is important to do to verify whether or not the author's claims have credibility.

Although I originally intended to focus on the effects of farms on the environment, I ended up focusing more than I had expected on the public health effects of antibiotic resistance on people, and other social and political issues related to agricultural regulation in my essay. I found it challenging and interesting to try to connect ideas and sources across disciplines— on cell research, history, anthropology, population science, public health, economics, government regulation and policies. I had never taken an anthropology or social sciences class before and really appreciated the challenge of bridging the supposed gap between STEM and the humanities. One of the most interesting things I discovered in researching this project is the diverse array of journals and papers that don't belong in strict categories but combine disciplines in insightful ways: such as the Agricultural and Environmental Science database which contains a lot of information on the interactions between human agricultural activities and natural ecosystems. I wanted to reflect the social importance of biological issues in my paper by talking about antibiotic resistance, an issue people normally relate to hard sciences, through the lens of ecology, culture, and politics; because although there is a lot to be learned about biological disease mechanisms, equally interesting and important is how human societies impact and are impacted by their own technological creations.