**1 - Organic Machine and the Paradigms of Climate History (return to Weeks 1-3)**

**2- Labor, Energy and the More-than-Human Climate State. Organic Machine as a prism for Baker’s chapters and maybe the connection between them?**

**3- The Organic Machine and the Problem of the Climate Archive (Return to the Indian Forest)**

**4 – Before and Beyond the Organic Machine: the Indus River Counter-factual (Kanopy and Youtube Videos on Moodle).**

Grove and Guha use archival sources from the time such as colonial government records, the forest department’s records, and missionary writings. They both also incorporated oral accounts from select officials, but it wasn’ as common as the others. I think both of them would agree that the forests of India are places of conflict. Primarily they are places of conflict over tahe ownership of resources. Something that one party must fully control, while the other has to bear the consequences of not controlling it. This could be either losing out of profit and business, or having ecosystems destroyed.

Barton highlights the ways in which colonial forestry practices continue to show their lingering effects on India’s politics. These practices show their most effect on those who are unable to combat the change that is placed onto them such as indigenous communities. Sivaramakrishnan uses more varied archives which is evident in his information on aspects of forestry. He argues that forestry was not just about extraction of resources from the forest, but a new kind of relationship between the state, science, and the environment. I think both would agree that the institutionalization of forestry allows for a more complex relationship between what the state wants and what the people want. Where government bodies are a part of one group and the individuals living in affected areas are another group.

From the questions one example that was constantly brought up in my mind was David Brandt. David was an American farmer who promoted soil conservation by using no-tilling and crop cover farming. I feel that even though farms and forestry are instinctively different, one is a forest and the other produces crops, I believe that they are essentially the same. Up until recently, like the early 1980s, tilling and a lot of pesticides were used to kill unwanted plants on farmland. Tilling breaks up the soil and is very damaging to the soil since it encourages erosion and disrupts the microbiome of the soil. David would share some of the same views as the first two readings, where the line between profit and environmental destruction is very thin. Where farmers don’t want to adapt to newer no-tilling or crop cover farming since it takes time for it to become profitable and when it is profitable it isn’t nearly as profitable as traditional farming. Although, he would also agree on the ideas of Barton and Sivaramakrishnan. The only reason he was forced to switch to no-tilling farming was because he was offered money (which he desperately needed after the vietnam war) by the US government to try it. The gap between government bodies and the people on the ground (or in the ground) and how they contribute to the environment is different. Where both want profit, but only one has to bear any major consequences.

Guha draws primarily on legal documents that detail the Madras government’s policies on forestry, such as bills, remarks, memorandums, reports, and orders, often written by the forest conservator B. H. Baden-Powell or forest administrator Brandis. Many of the legal documents come from the Board of Revenue in particular. Guha also draws on the work of contemporary historians on the history of Indian forestry in the colonial period. Grove utilizes many secondary sources, namely journal articles and books by contemporary historians. He uses some letters, legal documents, and regional studies as well. Barton’s sources appear to be much more varied; he uses history books, journal articles, censuses, forest management reports, autobiographies, magazines, reports, and speeches, among others. Sivaramakrishnan utilizes journal articles, history books, reports on forestry practices, and Brandis’s work, namely memorandums and suggestions. Barton takes on what is an often unspoken history by describing the way the United States was not only influenced but followed the model set by Indian forestry and conservation efforts. His use of magazines and popular print culture demonstrate that this was not just a communication between officials and foresters from the respective countries, but was also a widespread obsession amongst the general public, implying that forestry was viewed as a source for good. He portrays the relationship between the common people and their right to the forest in a somewhat vague sense that makes it seem as if the people were satisfied with the government’s decision on forest rights. Interestingly, he did not use a significant amount of legal documents which may shed more light on how the public reacted. Through his sources, he sees forestry as intertwined with colonialism, but understands this history through the eyes of the men who were considered founders of American forestry. As for Sivaramakrishnan’s work, he is particularly critical of and focused on the tactics of the colonial state to remove people from forest land in India. He notably cites Guha’s work as a common source, which likely inspired his focus on re-centering villages. Further, the Barton reading has made me consider the concept of climate debt in terms of the United States, especially given the fact that we have India’s example to thank for one of the institutions that supposedly epitomizes conservation: national parks. It makes me wonder if climate debt can also manifest in climate knowledge.

Guha’s piece uses a mix of sources that are more official texts like reports, books, legislative documents, and manuscripts and a few that are more casual accounts, like notes and remarks noted in a file. Grove also cited reports, books, and papers from India. Notably, from what I saw, most of the documentation for both texts were produced by people in positions of power, not locals or the indigenous population. More recent scholars have access to new information, as well as new perspectives that have been published about the subject. Sivaramakrishnan cites Guha and Grove, making use of secondary sources. Barton references more American sources, given that he is writing about the development of environmentalism in the US. Of course, this would shape how he interpreted the colonial intervention of Indian forests. It appeared that Americans were very much influenced and inspired by how Europeans controlled Indian forests, and wanted to replicate that ‘conservation’ because they exemplified a collaboration and understanding between the state and the public. Brandis, Barton says, educated India to understand that forestry can only be managed by the state and that only they can do it properly. The American characters in Barton’s chapter only understood India from the European perspective and their interpretation that there was less deforestation, and therefore Europeans must be doing good there. Barton’s reading did not not at all that Americans are colonizers of Indigenous lands as well. Meanwhile, Guha’s reading particularly discussed the specifics of the laws, acts, and memorandums related to Indian forestry. The account of the three types of forests that were delineated by the Indian Forest Act of 1878 made an impression on me, because of how 2 of the 3 were basically categorizing forests that were under state control or were going to be in the near future, and one that was meant for villages to use but was never used. I read Guha’s introduction of Brandis as a pragmatic individual who was interested in Indian locals’ way of using the forests, and who advocated for customary rights as story-like. In the end, he ended up supporting state “indisputable” rights. The back and forth listing of reasons against Brandis’ Act/Bill and the Madras government’s Bill against the Act was very interesting to follow the story through, even as they were taken from official documents. It was upsetting to read that the opposition to the Act and the resistance dispelled very quickly by Brandis’ rewriting of the Madras Forest Act. Then, we see Brandis spreading his ‘victory’ and the ways he achieved control of forests in India to Hough, Sargent, and Pinchot in America, spreading empire forestry in Barton’s piece. In many cases, the printed texts are a reflection of what people were thinking at the time, but more organized. However, they must also be biased, because they were printed with the audience in mind; perhaps the ideas were minimized to not spark too much controversy, which creates an article that also discounts the situation. The positions of the writers and where they stand will greatly influence their works as well.

Guha primarily pulls from court proceedings, important government documents, draft bills, writings of prominent figures (Baden-Powell, Brandis), reports, memorandums, laws, and letters. Very similarly, Grove pulls from archival sources such as documents, reports, and official records, including a lengthy description of their source materials at the bottom of most pages. Neither author heavily relies on opinion pieces created by other authors, instead choosing to compile a bunch of 1st hand sources that aid their arguments.

Barton’s piece barely touches on the negative impacts of colonialism in India because it is too focused on touting the accomplishments of early American “environmentalists”. Barton refer to an environmentalist who insists on building a system from scratch, just like what had been done in India. They give little recognition to Indigenous Peoples and claim that “forests in India satisfied all the needs of the population” when this is the complete opposite of what is being said in Guha and Groves’ writings. Barton also says that “India exemplified how forests could be utilized by the public and not “locked up” like Yellowstone” when Guha says “peasants would not plant trees on private or common land on suspicion that the government would seize it”.

Grove’s work relies on a mix of primary and secondary sources, including historical documents, scholarly research, journals, as well as archival records, reports, and correspondence. Guha relies on more legislative records and reports, as well as primary source documents such as writings by key figures such as Brandis and Baden-Powell. He also cites earlier research by environmental historians. Overall, both Grove’s and Guha’s sources seem very limited to Eurocentric ideas and information. Grove’s utilization of these sources is aimed at exploring the scientific and medical discourses that shaped early conservation. For Guha, his focus is on forest law and Indian resistance to colonial forestry. In contrast, Sivaramakrishnan focuses more on how past colonial forestry policies continue to influence present-day forest management and Indigenous rights struggles in India, utilizing sources that are more modern and diversified in nature, which makes his argument seem less biased and Eurocentric. I think he also presents a more comprehensive view of how colonial forestry policies represented a complex relationship between colonial politics, scientific inquiry, and concern for the environment. On the other hand, Barton seems to pull from very “Americanized” sources, which makes sense given that his argument centers around the development of forestry in America. Again, this selection makes Barton’s argument seem very Western-centric and pretty much ignores the perspectives of people in India as well as Indigenous peoples in America.

Regarding this week’s questions, I think the history of colonial forestry really emphasizes how biased climate data and modeling can be. For example, Sivaramakrishnan talks about the idea of “scientific forestry,” which was the German-inspired colonial approach to forestry that revolved around maximizing the efficiency of timber production. In this case, the scientific study of forestry and conservation was driven by profit. If climate science and modeling are always carried out with profit and political agendas in mind, can they ever really be accurate? Furthermore, mainstream climate science is dominated by Western epistemologies, which omits a huge cache of Indigenous environmental knowledge. These readings highlight how Indigenous knowledge and relations with the environment were suppressed and severed due to colonial forestry, which reflects the omission of this knowledge in present-day climate studies.

The biggest difference between these two groups of sources to me was the increased focus of the more modern chapters, especially the Sivaramakrishnan on a more critical view of Indian forestry. While the text focusing on the development of national forests in America is generally sympathetic, and displays the broad view held by many of the authors that some legislation is better than none, I am hesitant to buy into this idea. In the context of the economically minded American perspective it is likely true that without national forests much of that land would have been overused by companies or cleared for development. However, the Sivaramakrishnan piece utilizes a variety of perspectives which in my opinion enrich the argument and present a much more accurate and balanced picture of the impact of forestry on India in the 19th century. In particular by not only relying on "government approved" sources he is able to strip back the layers of colonial ideology that lay over this entire issue. It is the most critical role of historians to strip away the ways a certain group has tried to bend reality to fit their needs. I am particularly interested in references to Europe and the land rights that many European peasants maintained. To me there is overwhelming similarity in the use of common land by farmers in 19th century India and Europe just a few centuries earlier.

In terms of archives I feel that the more modern readings that we did were more comfortable working with sources that aren't necessarily intended to be viewed. An example of this is the chart of the names of plants in the Sivaramakrishnan piece. This is in contrast to official letters or notes from government departments that are used in the Grove/Guha pieces. The more personal approach to archive is reflective of the shift towards more personal histories in recent decades.