



Conflicting Bodies of Evidence: *Peritos*, Public Health, and Energy Workers’ Environments, 1934-1964

Cody Alexander Williams ¹
Raphael B. Folsom ²

ABSTRACT:

This project places the bodies of energy sector workers at the center of analysis through a critique of *perícias médicas*, or medical examinations following work accidents and an exploration of workers’ views on the role environment places in their workday. Industrial hygienists often portrayed the work locales as an industrial factory rather than a “workscape” intertwined with the natural environment and workers’ bodies, meanwhile workers pointed to the natural world as a cause without admissible evidence or a precise causal nexus. Both hold truths about perceptions and realities on environmental effect on Brazilian labor history. Control over these narratives had mater consequences. As a general objective, my project will explore the interplay between the environment, the workplace, and workers’ bodies’ in energy production as this dynamic affects impairments and illness through work ‘accidents’ and how understandings or ignorance of this relationship influenced common law and social providence for Brazilian workers in mid-twentieth century. My preliminary research on João Silva da Oliveira’s individual and collective cases reveals how emphasis on pathological issues, or health issues related to disease, over physical injuries caused by arduous work in volatile worksapes allowed the court to rationalize work accidents as specific occurrences separated from the environment. João appears to have suffered most from physical injuries, but won his cases because he had Silicosis-Anthraxose. The court admitted his Black Lung was minor, but could not ignore his physical injuries. His diagnosis did not match his condition due to the bureaucrat’s view of the environment in workplaces. Divisions between nature admissible as evidence vs. nature that is ignored or industrialized helped maintain state power over a larger work accident narrative overall. A pathological focus, a focus on disease, appears to have allowed the legal system to ignore widespread physical degradation involved in mine labor in law, but perhaps left a contradiction in the larger Brazilian society.

Keywords: Labor Relations, Worksapes, Public Health

¹ MA in History (Latin America-Brazil), University of Oklahoma, United States of America. University of Oklahoma Department of History, USA. cody.a.williams-1@ou.edu

² PhD in History, Yale University, United States of America. University of Oklahoma Department of History, USA. raphael.folsom@ou.edu

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

Workplaces in twentieth-century energy sector nearly always combine the industrial with the natural. Mines are a built environment dug and blasted from a natural rock formation, cane for ethanol is cultivated within organized fields, but then processed. Oil is extracted from the ground with drills and pumps, but must contend with rocks and crevasses. More than most of the labor force, energy production is inseparable from the natural environment it affects. Tools, machines, and human labor create extractive factories within the natural world. These spaces are as organized as they are chaotic, but labor history has yet to recognize if and how the state acknowledges how intertwined the environment is to such a key factor of nation-building when dealing with the misfortunes that fell on laborers in work accident cases. I explore the ways workers recognized the hybrid nature of their locales of work as they faced impairment and illness from work accidents. In essence, my work looks to combine labor relation with environmental degradation inside and beyond the workplace in one study on workers' bodies and the arguments around them in *perícias*. The energy sector is certainly not the only locale of work that is both industrial and affected by the natural world. But it is a prime example of this reality. My study will reveal the far-reaching material consequences of bureaucrats' division or exclusion of nature in individual and collective accident cases.

METODOLOGIA / MÉTODOS

Labor historians have begun to address some of this study's subject matter. Clarice Esperanza demonstrates in *Cavando direitos* how in the mid-1940s, miners went to protest the insalubrity of the mines and seek greater individual benefits using new labor regulations, the Consolidação de Leis Trabalhistas (CLT), despite divisions. Her analysis of their struggle remains largely fixed on the details of labor law and does not address legislation on work accidents, beginning in 1934. While she does mention cases of injury she avoids analyzing the rationale of individual workers or *peritos* in depth as it relates to the environment and public health (Esperança 2014). Barbara Weinstein in *For Social Peace in Brazil* meticulously examines industrial safety and the view of employers, but her focus on urban São Paulo means she cannot account for hybrid urban-rural workspaces, where the natural spaces introduced factors not as easily accounted for, or controlled in urban spaces. She discusses accidents at length, but ignores workers' bodies and the long-term implications of impairment/illness. Neither author focuses on the role of the body (Weinstein 1996) Moreover, the Brazilian historian, Evangalia Aravanis has mapped out the bureaucracy of accident cases in two articles on relations between the state, company executives, and workers, but stays focused on these institutions and does not discuss the workplace, or the environment (Aravanis 2009; Aravanis 2012).

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

Recently, historians have become more interested in work accidents. José Marcelo Marques demonstrates that capital's investment in work medicine and work accidents works not necessarily for the good of the worker's health, but to allow for the maintenance and recuperation of human capital (Marques 2010). Felipe Figueiró Klovan provides an even more detailed example of this concept in his study of Southern coal mining in the 1930's and 1940s. He describes how mine owners went to great lengths to attribute illness to the living conditions and social habits of workers to avoid fault. Moreover, company lawyers quickly learned how to obscure the casual nexus of illness cases by adding extraneous factors to their arguments (Klovan 2014 pp. 122-149). Finally, Ana Beatriz Silva's dissertation employs Marques' logic through an examination of worker rehabilitation programs during the dictatorship. She contends that "preventionism" training programs threw the onus of cause on the worker and that rehabilitation for workers in Salvador simply sought to "recycle" bodies to recuperate capital gains (Silva 2016, p. 5-6). These works all show how historians can better understand work accidents as class conflict. That said, their insistence on the disingenuous nature of lawyers and doctors fails to examine why, beyond dynamics of capital, the arguments they present are successful in allaying the distress these accidents cause within society. Finally, much of the work above, excluding Silva, focuses on illnesses specific to certain industries and ignore physical impairment. I examine the interaction between diseases and physical injury in a series of accident cases and conclude that preference for pathological causes of workers' bodily degradation give the accident a specific, preventable cause and allow a limited number of workers to receive compensation. In the case below, the court's categorization of his issues as solely pathological allowed the judge to resolve disconnect between his diagnosis and his condition without admitting the physical of the mine.

Environment historians have also expanded historical analysis of labor struggles. Thomas Rogers' study of Northeastern sugar cane production, *The Deepest Wounds*, demonstrates the transformations its production catalyzed in the land itself and labor relations that structured society from 1600 to the 1980s. His most commendable achievements is the extent to which changes in land and labor regimes both affected each other and shaped the choices of societal actors for further labor and cultivation (Rogers 2010). Still, he too ignores workers' bodies and injury and impairment even as he masterfully shows how the natural and man-made worlds collide in cane. Chris Sellers' *Hazards of the Job* demonstrates how environmental degradation can extend to the body in the industrial United States, but does not look at hybrid workplaces (Sellers 1997). Myrna Santiago's *Ecology of Oil* in Mexico serves as an approximate model for my study of Brazilian energy production. However, my study seeks to not only examine how the environment harms workers' bodies, but also bring these bodies and their

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

implications into a larger discussion of bureaucratic continued efforts to steer Brazilian social policy in favor of elites. In initial research, divisions between the industrial and the natural, or rather, natural elements admissible as medical-legal evidence and those rationalized as industrial curtailed the power of organized labor.

My primary framework is Thomas Andrews' concept of worksapes. The workscape "...is a spaced shaped by the interplay of human labor and natural processes... [that]... implies a constellation of unruly and ever-unfolding relationships." These connections are shared between, "land, but also water and air, bodies, organisms, as well as... the lens of culture through which they make sense of and act on their surroundings" (Andrews 1990, p. 125). The cases I examine have three sets of actors: workers who experience accidents and possibly a foreman, medical examiners and judge together with some type of inspector, and the physical hybrid space of extraction itself. For the workers, I will utilize their court testimonies, the arguments employed by their lawyers, work-floor reports that give an idea of the content of their labors, and memoirs as well as oral histories from workers in the energy sectors when available (oil, coal, and ethanol workers). On the side of the state, I examine *pericias médicas*, final assessments given by judges, and any safety inspection information either within formal court documents or from workplace reports. Finally, there are likely manuals used to train the medical examiners that would shed light on how they evaluate workers. I will balance the reality of environmental change within worksapes against the perspectives of the worker and state to demonstrate the role that the environment plays for each side. Once I have explained these perspectives, I will use present-day literature on workers' medicine and safety to demonstrate what workers observed.

RESULTADOS E DISCUSSÕES

The following analysis examines two cases and showcases my preliminary research before more extensive fieldwork:

Black Lung, or Silicos-Anthracoze, coupled with an untreated hernia left him wheezing, and hardly able to stand with his labored gait. João Silva da Oliveira,³ a "scraggly-bearded *pardo*," began the third appeal against his work accident case against the Cia. Carbonífera Minas de Butiá in 1942. A company doctor and a state physician gave varying degrees of credence to his claims that he had Silicosis-Anthracoze. The medical examiner, *perito*, had verified its presence through x-rays His initial

³ I have opted for pseudonym to protect the workers' privacy given that I will be discussing sensitive health matters. As a result, I also chose to cite the case using legal citation methods to preserve his anonymity.

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

medical report concluded that João's "advanced age" and the "degree of his negative [lung] culture...determine him totally incapable... of adapting to another profession" (Ap. 260.269, 1943 p. 2, 7-9). The doctor cited the risk of the disease's progression as his guiding principle. Pathological causes and risk of further disease were his only arguments. Yet, João pointed out other factors supposedly verified previously by a Dr. Arlindo Silva in his police statement explaining why he could no longer work: a hernia and immobility.⁴

For all the court's focus on João's lungs, he mostly emphasized his decreased mobility. His lawyer briefly mentions these physical difficulties, but mostly described his Silicosis, much like the doctor. He certainly suffered from the ailment in his lungs, but downplayed its intensity at the end of his statement right after pointing out his inability to walk. His body, by no fault of his own, had deteriorated, leaving him fragile and stationary. However painful his cough, it appears that the symptoms of his silicosis only added discomfort to his immobility and physical weakness. In testimony, his bodily degradation, not merely infection, led to his pleas (Ap. 260.269 1943 pp. 2-3, 22-23).

The medical report done by the mining company's *perito* further complicated João's case. This doctor, paid by João's employer, argued that he showed no signs of a hernia and that his scarred foot functioned normally. Furthermore, he contended that some of the chest pains described above could be due to a cardiovascular condition, myocarditis, that inflames the wall of the heart. Finally, the doctor conceded that João does have Silicosis, that has caused significant weight loss, but that it was only in the "first phase" and only warranted "a permanent and partial reduction, in the lowest degree, of his capacity for work" (Ap. 260.269 1943 p. 36-42, 40-41).

The judge's decision reveals an unresolvable tension that favored João. First, the judge made clear that due to the company doctor's denial of his physical injuries, the court could only consider the symptoms and outcomes of his Silicosis. He explained that the company doctor declared his physical injuries non-existent, making his earlier claims legally irrelevant. He goes on to emphasize how "exhaustion, lack of air, fainting, and a cough...prevented [João] from partaking in any kind of work" and he had lost "all physical vigor." The judge acknowledged the dueling medical narratives. The judge explained that the lab results showed Silicosis and João was clearly unable to work, therefore the basic causal mechanism was clear, despite the dispute over its intensity. João Silva de Oliveira won, even though his Silicosis was the least of his concerns. João received 5,661 *cruszeiros*, nearly two years-worth of his previous daily pay based on his Silicosis (Ap. 260.269 1943 pp. 55-61).

⁴ See block quote and translation in PowerPoint Slide 6. Quote taken from pp. 22-23 of Ap. 260.269 1943.

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

João's case file revealed several contradictions. There was a clear divergence between João's rationale for his incapacity to work and the court's sole focus on pathology. His lawyer only briefly mentioned physical concerns. Nowhere in his initial medical examination were his physical difficulties scrutinized. Yet, the doctor tested for tuberculosis.⁵ Furthermore, the company *perito* dismissed his complaints, arguing his foot had healed and he never had a hernia. Either João or the *perito* could be lying and both had clear financial incentives to do so. Still, it is interesting that the doctor only tests his foot with his finger and checks his groin. The doctor never asked him to walk, nor did he test other theories related to his physical condition. The doctor's evaluation of João only checks individual body parts, not his capabilities. Finally, the judge mentioned fainting, but neither João or the doctors discussed this symptom. The judge appears to be ruling based on generalities of miners' experiences and he too worked to fit João into a clear medical category explained by infection and not factoring in physical degradation. At the same time, he realizes the physical consequences of João's work.

The case file did not make not clear whether João faced mobility issues or perhaps fabricated them to present a better case. Consider, though, that even the plaintiff himself referred to Silicosis as simply a "small cough" (Ap. 260.269 1943 p. 23) Even so, the judge did not place into doubt that João's physical capabilities had deteriorated, perhaps there was no denying it. The above incongruences ultimately won the case for João, but victory was only possible once the state could Silicosis-Anthracosis for his precipitous decline.

The state system appeared determined to attribute João's loss of work capacity to the pathological consequences of silicosis. The natural factors admitted as evidence are only those which fits squarely in the medical gaze: Silica from coal and the mucus that João produced.⁶ Falling rocks and the pernicious physical effects of João's interactions with the built environment are merely background to a very specific medical process. The separation of João from his surroundings reduced his suffering to the interaction between his alveoli and the dust he inhaled without considering the complexities and variation in the environment of the mine. This presents João's case as happenstance, an outlier that technocrats can dismiss. Physical degradation, however, is inevitable. If the court had admitted that the physicality of João's work left him unable to work, they would have to admit that his work was inherently exploitative at the cost of physical mobility. Instead, a more normalized risk of silicosis gave his body's state a preventable cause. Yet, it appears the judge could not ignore João's physical state. Intentional or not, the state's obsession with pathology allowed bureaucrats to ignore the systematic

⁵ I know these conditions often happen together, but I mean to highlight the focus on pathology.

⁶ I still need more sources on how doctors viewed germs in nature and the connection mid-twentieth-century physicians saw between medicine and the environment in Brasil. All recommendations are welcome.

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

degradation caused by physical labor in unpredictable, environmentally complex workspaces. Furthermore, the court's willingness to compensate João despite the disconnect between their explanation and his situation demonstrated the extent to which the state attempted to rationalize the labor exploitation as limited.

Soon after his individual case, the Coal Miner's Union asked João and nine other miners to bring a collective suit against the mining company to argue for the insalubrity of the mine. The twelve miners ranged in age from eighteen to seventy and had worked in the industry anywhere from five to forty years. All suffered from a combination of silicosis and chronic pneumonia and had varying degrees of physical impairment, from arthritis for the youngest litigant to hernias and unhealed fractures that caused an inability to walk for more advanced miners. Insalubrity could grant all workers in these spaces a twenty to forty percent pay raise and made healthcare for a pre-determined list of conditions individual trials much more straightforward. Insalubrity, if proven it would be costly. Yet, Industrial hygienists and labor judges ruled the mine could not have caused these illnesses. They had supposedly limited the causes of disease.⁷

The rationale behind the verdict was in how the state viewed mines: As a solely industrial workspace. Dr. Cláudio Viera de Pontes Correia, the case's state-trained and state-employed medical examiner, admitted that assuming all workers could contract silicosis from the mine stating, "maximum insalubrity should be declared." But, this couldn't be because, "[these] mines were the best installed and regulated he knew of." He displayed technical expertise with his notes and measurements and, in the process, denied miners' claims that poor and variable airflow coupled with increased humidity increased the amount of dust in the air. The Brazilian labor historian, Clarice Esperanza points out that the doctor emphasized mismanagement of water run-off and puddles in his report but did not connect this to any increase in dust or variability in work conditions. In essence, the doctor rationalized the mine as an industrial workspace, where the environment, while present, could not undermine their precise planning or technical knowledge (Esperanza 2014 pp. 146-149).⁸

His claim of the mine's technical superiority as a workspace still legitimated this view in the court's view. His avoidance of the effects of the natural world in his report elucidated a vision of mines as wholly industrial. His removal of the natural world allowed the court to more tightly controlled what

⁷ This list of illnesses and their consequence are based on a combination of the ailments that miners testified to in court, the illnesses I noted in my review of 100 cases in the Rio Grande do Sul Justice Tribunal Archives, and the illnesses noted in the digitized cases available in Brazil (unpublished evidence).

⁸ The relation of the case in the book does not specify which government agency Dr. Correia comes from, just that he is a "perito," a medical examiner/investigator and agent of the government. Once I can go through the case, I will provide more detail on his institutional background and the specifics of his notes on the mine in future drafts for publication.

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

counts as admissible evidence and limited the number of factors causing work accidents. The verdict against insalubrity in 1948 also ensured that each case could individually be scrutinized and rationalized, likely without João's outcome.⁹

The research for the larger project is still underway. Summer 2016, I went to Porto Alegre and found a large cache of accident cases relating to the coal mining industry of Rio Grande do Sul at the Tribunal de Justiça Archives. I was unable to do an exhaustive examination of the cases, but did determine that they are a rich source of state power and worker agency over their bodies. Further analysis of accident cases and inspections will surely reveal a more complex bureaucratic vision. Dr. Thomas. Rogers, Dr. Benito Schmidt, and their contacts have also pointed out several sites in São Paulo, Pernambuco and Salvador where I can find cases on the ethanol and oil industries as well as leads on to find company more records and workers willing to give oral histories. I will pursue these opportunities during my Fulbright year in 2018.

AGRADECIMENTOS

Thank you to all my thesis committee: Drs. Raphael Folsom, Aparna Nair, James Cane-Carrasco, and Erika Rob Larkins. I would also like to thank Both Roberson Committees of the University of Oklahoma Graduate College and the University of Oklahoma Department of History. The funds you all provided made this research and this presentation possible. I also greatly appreciate advice and Recommendations provided by Drs. Benito Schmidt and Thomas Rogers. Finally, I cannot show enough gratitude for my friends and family, both in the US and Brazil that have encouraged me and helped me get to this opportunity.

REFERÊNCIAS BIBLIOGRÁFICAS

Ap. 260.269, Câmara Cível do TJ (Jus. Civ)/RGS, em 19.10.1943. Ação de Acidente do Trabalho, São Jerônimo, Rio Grande do Sul, Brasil.

Andrews TG 2008. *Killing for Coal: America's Deadliest Labor*. Harvard University Press, Cambridge, 376+ pp.

Aravanis E. Os processos de acidente de trabalho na capital do Rio Grande do Sul no início da Era Vargas: embates entre a Justiça, o patronato e o trabalhador Revista Latino-Americano de História.

⁷ More research needs to be done on the training standards of medical examiner employed by the institutes responsible for medical accident and pension payments, (Instituto de Administração Financeira da Previdência e Assistência Social, IAPAS, and Instituto Nacional de Previdência Social, INPS).

Cody Alexander Williams (Univ. of Oklahoma); Raphael B. Folsom (Univ. of Oklahoma)

2012 March [Cited 2017 Jun 25]; 1(3): [about 10 p.] Available From:

<http://projeto.unisinos.br/rla/index.php/rla/article/view/87/65>

_____ 2009 Um Olhar Sobre os Processos de Acidentes de Trabalho no Rio Grande do Sul (1934-1950). *Aedos: Revista do Corpo Discente do Programa de Pós-Graduação em História da UFRGS* [1984-5634]. 2009 Nov. [Cited 2017 June 25]; 1(3): [about 6 p.]. Available from: <http://seer.ufrgs.br/aedos/article/view/10625>

Blackie D. "Disability and the Industrial Revolution: A Comparative Cultural History of British Coalfields, 1780-1948." Aug 21st, 2014. Disability History Festival for IPC Athletics European Championships, Swansea, Wales, UK. <https://www.youtube.com/watch?v=-WW76vYkhSc> (Accessed June 5th, 2017).

Dissídio Collectivo — Sindicato dos Trabalhadores na Indústria da Extração do Carvão. Porto Alegre: Livraria do Globo, 1948 in Esperança 2014.

Esperanza, CG 2014. *Cavando direitos: as leis trabalhistas e os conflitos entre os mineiros e seus patrões no Rio Grande do Sul (1940-1954)*. Oikos and ANPUHRS, São Leopoldo and Porto Alegre, 295 pp.

Ferreira-Filho, J. M. M. "A medicina do trabalho e sua relação com o capital." In: X Encontro Nacional de História Oral: Testemunhos: história e política, Recife, 26-30 April, 2010.

Klovan FF 2014. *Sob o fardo do ouro negro: As experiências de exploração e resistência dos mineiros de carvão do Rio Grande do Sul na década de 1930*. PhD Thesis, Universidade Federal do Rio Grande do Sul, 235 pp.

Kopf SP 2012. O coração do trabalhador: cardiologia e projeto nacional no Estado Novo. In MM De Andrade et. al, *Corpo: sujeito objeto*, Editora Ponteio, Rio de Janeiro, pp. 221-246

Livingston J 2005. *Debility and the Moral Imagination in Botswana*. Indiana University Press, Bloomington, 310 pp.

Rogers TD 2010. *The Deepest Wounds: A Labor and Environmental History of Sugar in Northeast Brazil*. University of North Carolina Press, Chapel Hill, 320 pp.

Santiago MI 2006. *The Ecology of Oil: Environment, Labor, and the Mexican Revolution, 1900-1938*. Cambridge University Press, Cambridge, 410 pp.

Sellers CC 1997. *Hazards of the Job: From Industrial Disease to Environmental Health Science*. Chapel Hill: University of North Carolina Press, Chapel Hill, 331 pp.

Silva ARB 2016. *O desgaste e a recuperação dos corpos para o capital: acidentes de trabalho, prevenção e reabilitação profissional durante a ditadura militar brasileira (1964-1985)* PhD Thesis., Universidade Federal de Pernambuco, 436 pp.

Evidências conflituosos: Peritos, saúde pública e ambientes de trabalhadores do setor da energia, 1934 a 1964

RESUMO:

Este projeto coloca os corpos de trabalhadores do setor da energia no meio do análise por uma crítica de *perícias médicas* de processos de acidentes do trabalho e uma discussão dos pontos de vista de trabalhadores quanto ao papel do meio ambiente no seu cotidiano. Técnicos de higiene industrial muitas vezes descreveram os locais de trabalho como uma fábrica industrial ao em vez de que uma “workscape” que interlaçava o meio ambiente com lugares de trabalho e corpos de trabalhadores. Ao mesmo tempo trabalhadores destacavam o mundo meio-ambiental como um nexos causal sem evidências admissíveis ou uma explicação ‘precisa’ do processo. Os dois lados contêm verdades sobre percepções e realidades de consequências ambientais na história trabalhista do Brasil. Controle sob estas narrativas era também controle sobre realidades materiais. Como objeto geral, meu trabalho procura expandir entendimento da interligação do meio ambiente, locais de trabalho, e os corpos dos trabalhadores do setor da energia e como esta tendência afeta percepções de danos físico e doença por ‘acidentes’ do trabalho e como esta relação ou ignorância de aquilo influenciou a justiça comum e previdência para trabalhadores brasileiros no meio do século XX. Minha pesquisa preliminar sobre os processos individuais e coletivos de João Silva da Oliveira revela como ênfase nos assuntos patológicos, ou seja, assuntos relacionados a doenças mais do que danos físicos facilitou a racionalização de acidentes do trabalho como ocorrências específicas separadas do meio-ambiente. João parece ter destacado mais os feridos físicos e suas consequências mas ganhou seu processo por cause do Silicose-antracose. A Justiça Civil admitiu que no seu caso Silicose se apresentava em grau menor, mas também não podia ignorar seus danos físicos. O diagnóstico dele não correspondeu totalmente ao seu estado geral devido à visão do meio ambiente no lugar de trabalho das burocratas. Divisões entre aspectos do meio ambiente admissível como evidência versus aquele que seja ignorada ou industrializado ajudam a manter poder sob uma narrativa de acidentes do trabalho maior. Preocupações patológicos, Preocupações de doença, parecem a ter liberado o poder judiciário a ignorar a degradação física que trabalho de mina casou, mas talvez deixasse uma tensão na sociedade brasileira maior.

Palavras Chave: Relações do Trabalho, “Workscapes,” Saúde Pública