

Calvert Award Essay for Advanced Undergraduate Research

When I began my research on the nineteenth century naturalist Richard Owen, I certainly was not expecting to find as exciting a story as I did. What I found was a story about an ambitious scientist's rise to become one of the most respected naturalists of his day, only to be undone by his own ego; a story about a man starting a fight against our beloved father of modern biology, Charles Darwin, and losing; a story with a rising action, climax, and bowtied with a bittersweet conclusion. There were times during my research where it felt like I was reading a movie script. If nothing else, this project taught me that the most interesting stories can come from the most unexpected places.

Trying to get a feel for that story was my first roadblock in my research. Trying to just delve into a bunch of different sources was overwhelming and it was hard to make sense of all the information I was reading. In addition, I am not a biology major, so in my research, I was introduced to unfamiliar terms and theories about (albeit less-advanced nineteenth century) biology that I could not contextualize. My solution was to find the most comprehensive and well-laid out source on Richard Owen that I could find. That is what I did when I found Nicolaas Rupke's *Richard Owen: Biology without Darwin*. Reading that book cover-to-cover played a fundamental role in developing in my mind what the story of Owen is.

Once I understood that story, all my supplementary research made much more sense. Suddenly I understood what one source was talking about when referring to "secondary causes of evolution" or what another meant by "archetype theory." My process became much more streamlined as I was able to string together my sources like puzzle pieces, constructing this story about this prideful nineteenth century naturalist.

Another roadblock in my research was balancing the use of primary versus secondary sources. Richard Owen is mostly forgotten today, so many of his less notable works were difficult to find and I had to rely on secondary sources to detail and present them. Using secondary sources was somewhat of a struggle as for a long time, many of the secondary authors reporting on Owen's life were loyal to his nemesis, Charles Darwin, and portrayed him as Darwin and his followers portrayed him, an irredeemably mean-spirited autocrat.

It was not until the last thirty years that secondary authors began to take a more balanced approach, weighing Owen's good qualities against his malicious ones, so I had to rely on relatively modern sources. Additionally, the fact that so many secondary authors could be blindly wrong for such a long period of time made me suspicious of the secondary sources I was currently using, as it is entirely possible that they are wrong about crucial aspects of Owen's life, as well. To try to minimize the errors of secondary authors influencing my research, I centered the vast majority of my research around peer-reviewed articles and books, and I sought information from many different sources to corroborate the key information I was incorporating in my paper, and I made sure I could at least find some evidence supporting the claims of secondary authors in the primary sources I was able to find.

In past research projects of mine, I was not too concerned with how reliable my sources were as long as they were readily available and easy to incorporate into my papers. With this project, however, my suspicion of sources and my fascination with the topic led me to be more careful with my sources and take advantage of Lied Library resources I never bothered with before. Primarily, all four books I used in this paper I found in the Lied Library and I found all the scholarly articles I used on the UNLV libraries online database.

The story of Owen teaches us to not let ego control your actions and to be generous when you have power so that others treat you the same when you do not. The one thing I hope the readers of this paper take away is to not underestimate the storytelling power of history. Enthralling stories can be found in the most seemingly banal places. Even more important is the lessons these stories teach us.