



2023



**Gold Dust**

California Comstock

12 FL. OZ., 5.6% ALC/VOL

Nikky Sims

2024 Spring

Capstone – Graphic Design

Department of Art and Art History

**Artist Statement:**

My graphic design work dives into both human relationships and the natural world. My art often utilizes realistic references from real life redrawn with bold line work and bright saturated colors that border on the style of a whimsical children's book. I have been an avid reader ever since I was a kid with a particular interest in romance and happily ever after, so I create designs to feel connected to my love for books. Reading is what got me into design, so I draw upon it for inspiration.

The other side of my work is focused on animals and the natural world. I have a soft spot for animals. As a Coloradoan I can go anywhere to see different animals and their habitats. I like to tell stories about animals' lives with a particular fascination for natural disasters like wildfires. Having been a journalist on the side of my graphic design work I tend to meld the two together to shed light on natural disasters or animal living situations.

While most of the time I create my art through digital renditions, I also like to get a more whimsical edge to my works by using watercolor, dyed paper, or physical hands-on designs that are then transferred into a digitally rendered version I work over. I explore media outside of digital renders to get things I cannot fully get just through digital creation, but it also aids in having artwork as imperfect as we are.

<b>Title</b>	<b>Original Format</b>
Figure 1: Gold Dust	Illustrator/InDesign, 8 in x 3 in
Figure 2: Gold Dust Branding	Illustrator/InDesign, 11 in x 17 in
Figure 3: Aging Research Posterzine	InDesign, 16 in x 23 in
Figure 4: Aging Research Posterzine Detail	InDesign, 16 in x 23 in
Figure 5: 12 Dancing Princesses Book	InDesign/Fresco, 8 in x 6 in
Figure 6: 12 Dancing Princesses Book Mockup	InDesign/Fresco, 8 in x 6 in
Figure 7: Cyrano de Bergerac Poster	Illustrator, 11 in x 17 in



Figure 1: Gold Dust



Figure 2: Gold Dust Branding



Figure 3: Aging Research Posterzine

## DISPARITIES

In this line of research, it has been found that products or services provided are not the same as the way COVID-19 treatments were treated. "Could we be delayed by the government meaning that we got a vaccine in around a year. This is because when a drug is detailed everyone can work on it as well as funding was there to aid in producing something effective," said Ehrhart. However, she has been doing her research for years now and is still expected to be doing so in years to come. This not only affects her research because it takes time and money but also it will only one day of test people.



If she can produce medicine that could treat these diseases a majority of people may not have access to it because the medicine be expensive and doctors not giving every option a person may have to treat their problems. Ehrhart explains that if we push for the detailing of drugs as well as encourage people to have healthier habits at younger ages these disparities in the medical access of people will not be as bad.

"I should continue to research lifestyle and not just the say new drugs," said Ehrhart. She explained that while it is important to figure out how to treat people before the disease ever comes on is important but so is figuring out the things we can do as young people because there are a lot of things we can do that we are not doing. We need to educate ourselves to prevent the disparities and challenges older adults have.

Looking at trying to undo damage that happens at a cellular level. Nicole Ehrhart, looking at the it drivers that cause age diseases and disorders. The new drivers include genomic instability, telomere attrition, epigenetic alterations, mitochondrial dysfunction, loss of proteostasis, deregulated nutrient-sensing, cellular senescence, stem cell exhaustion, and altered intercellular communication. Ehrhart's promising direction includes developing and testing how to block or at least slow the onset of these drivers. With the discovery of biomarkers, they can soon link humans to canines.

Biomarkers are an objective measure that captures what is happening in a cell or organism and they serve as an early warning system for health. What can be helpful for Ehrhart work is they can compare early warning signs in dogs and then start to apply them to humans to see what things may be in the cellular level that gives away a disease that has yet to start in a human. They first use a blood test or something else to measure and then find what is going out of whack sooner. After they figure this out, they can then treat people and prevent it from happening.



"WITHIN MY LINE OF RESEARCH THERE IS A MASSIVE DISPARITY IN ACCESSIBILITY OF MEDICAL ACCESS." - NICOLE EHARTH

## FOCUS OF RESEARCH

Ehrhart's Why



Nicole Ehrhart is the director of Colorado State University's Columbine Health Systems Center for Healthy Aging and a Full Professor in Clinical Sciences at the College of Veterinary Medicine and Biomedical Sciences. Ehrhart does research specifically in aging humans and how dogs can help answer questions of aging diseases. "As a well trained how dogs were affected by cancer and how they would age faster like humans when going through cancer." Ehrhart is getting answers on how to treat aging diseases before there were even early signs of it she has started to use her knowledge of dogs to help figure out these issues for humans and dogs alike.

## AGING DISEASES

Doggy body diseases and their overlap with humans

We are not all that different to our canine companions. As explained in her research, "most of the common dog diseases are similar to those of humans, mainly in terms of age-related diseases in the organs and systems that are most affected by human aging: the brain, kidney and cardiovascular system." Some of the disorders that both of these groups have are congenital which means that these are going to be genetically inherited. They are going to at birth have these underlying issues but will start showing signs and then as Ehrhart has explained will be too late to treat properly.

Doggy behavioral and neural diseases

Dogs have already been used in research for understanding the human body as well. The two times they have been used is in cobble medications and it was found that the reduction of cobble while still being advised from it for certain prolonged lifespan and delayed the onset of many age associated conditions. The second time dogs were used is when understanding Alzheimer's disease. This is because rodents do not show amyloid plaques (irregular proteins that form in the spaces between nerve cells) while dogs do. They also show similarities to that of humans in cognitive decline especially with tasks involving the prefrontal cortex. Furthermore, while limited these are studies on the effects of dog breeds on behavioral aging. As well as differences in longevity. Studies focused on longevity analysis and specific behavioral traits displaying more decline in old age, deterioration in small or large dog breeds. What one would expect to find is that large, shorter lived dog breeds would achieve a behavioral maturity sooner and thus also begin to have age related deterioration sooner but what was instead found was that the smaller longer lived dog breeds had for more signs of behavioral aging including but not limited to blindness.

Source: <https://doi.org/10.1016/j.jamvs.2017.08.004>

## WHY DOGS?

Canine's Help Us Out

Not only are dogs important to Dr. Nicole Ehrhart's line of research because of her background in veterinary work but it is also super important to answer questions about humans that other animal species cannot do. The reason Ehrhart research's dogs has a multitude of reasons, but the biggest reason is as she explained "companion dogs share a similar lifestyle as humans than that of laboratory animals. Rats, mice, and other animals kept in a laboratory only have experienced life in those conditions, so they do not experience the same things humans do on a day-to-day basis." Our companion dogs have been exposed to similar things to us such as pollutants or environmental factors.

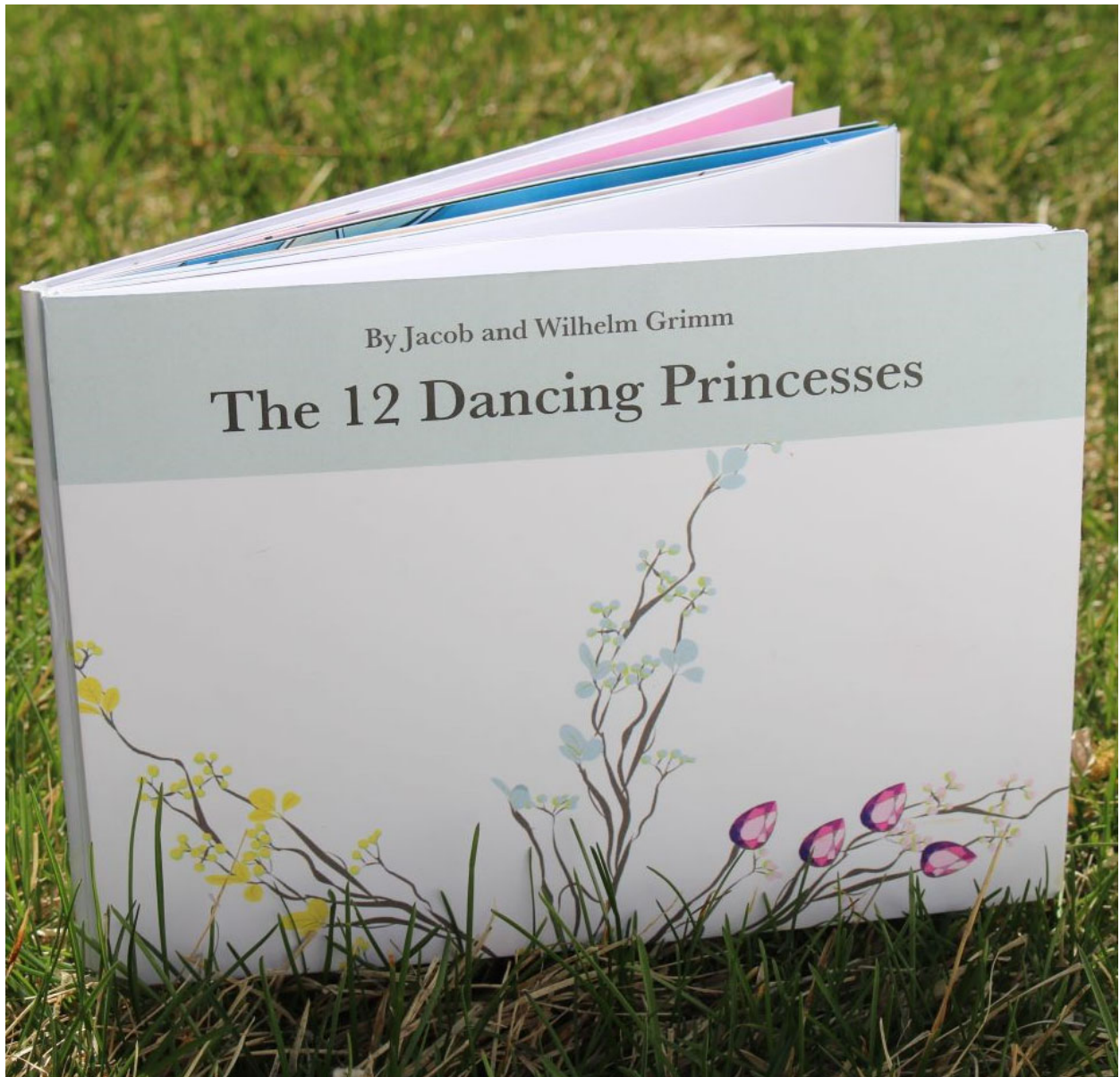
Some other key reasons that Ehrhart has chosen to research dogs to understand the human lifespan and better identify diseases before they hit are co-evolution of canines and human, aptitudes for communications with humans, vast knowledge of dog diseases, and other such things like selective breeding has created 20-fold variations in body size and over 2-fold differences in age rates. There are also around 80 million canine companions in the USA, with an increase in not only human but dog elderly populations. This means that not only is the research going to provide information on how to treat diseases for humans but can help provide understanding of dog's health too so we can enjoy them for longer.

# WHAT DOES YOUR DOG SAY ABOUT YOU?

Colorado State University's Columbine Health Systems Center for Healthy Aging – established in 2017 through a generous gift from Bob and Kitty Wilson, owners of Columbine Health Systems – offers 7,000 square feet of research, educational, and outreach space. The Center focuses on interdisciplinary research related to healthy aging, providing educational opportunities for students and evidence-based community programs. With over 80 researchers from various disciplines, the Center's mission is to unite and facilitate research teams across CSU's colleges to address the global challenge of aging.



Figure 4: Aging Research Posterzine Detail



**Figure 5: 12 Dancing Princesses Book**

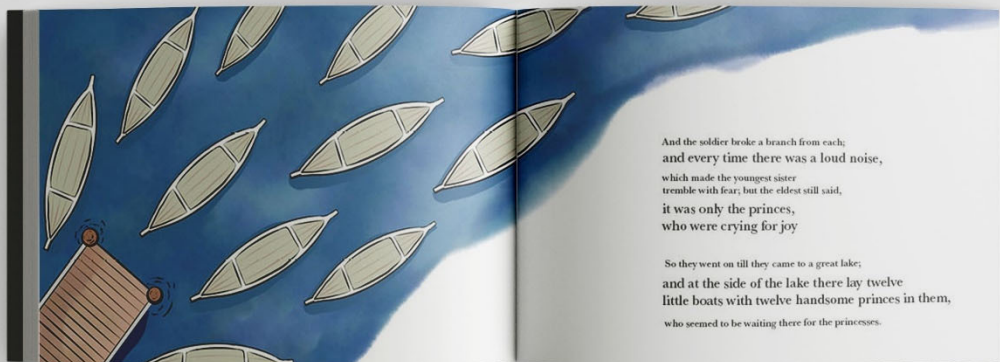
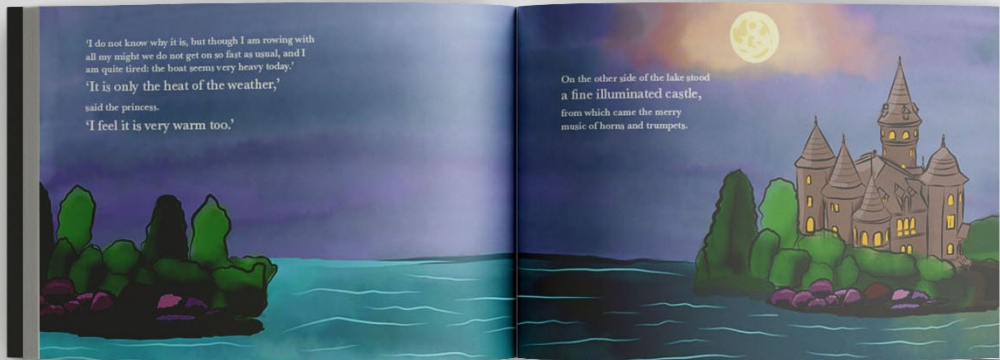


Figure 6: 12 Dancing Princesses Book Mockup

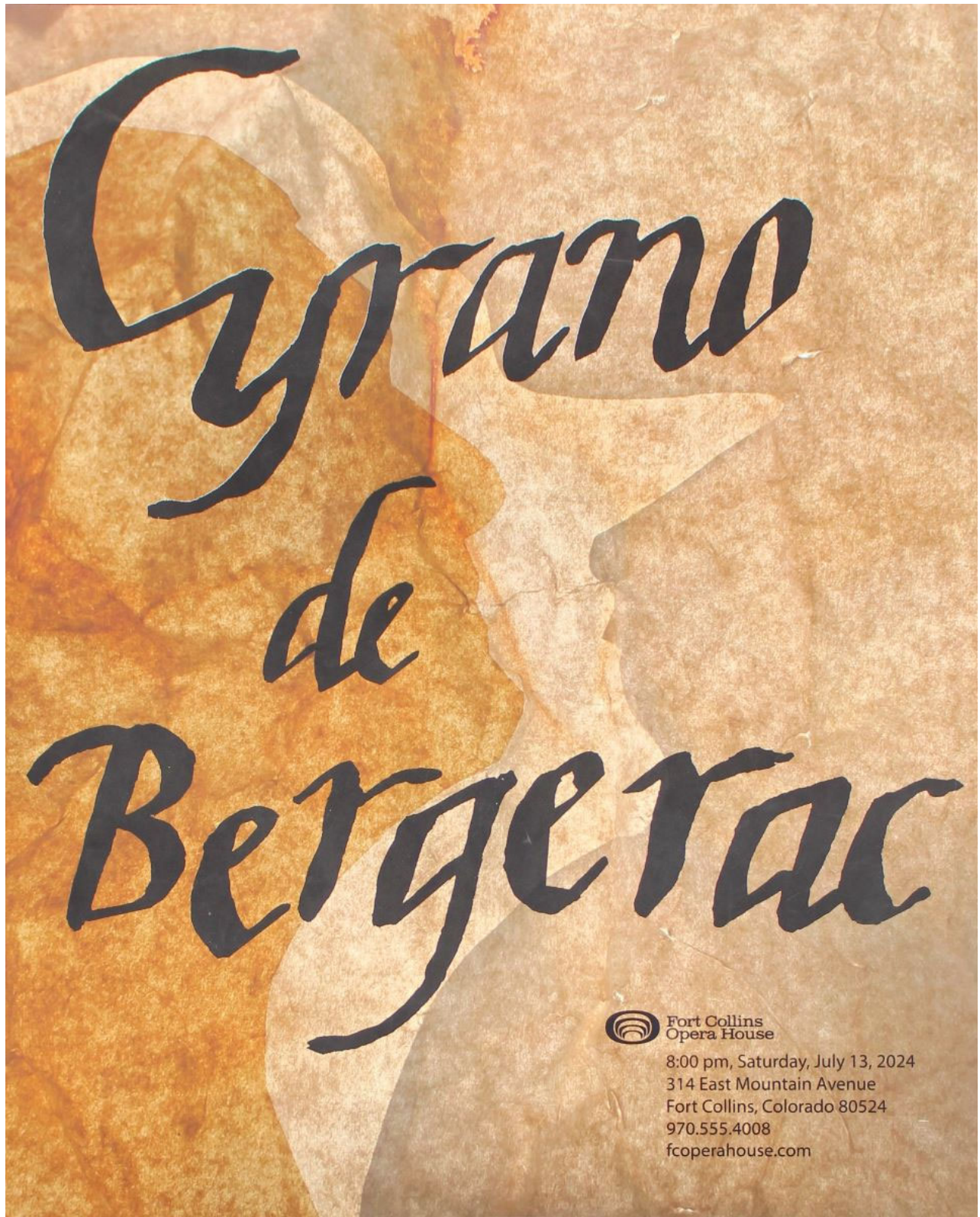


Figure 7: Cyrano de Bergerac Poster