

REPLACING THE HORSE

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I have been working with horses as imagery for about seven years and my problem in lieu of thesis continued along this vein by researching the roles of the horse in history, specifically mobility, and developing work that creates visual links between the past and present roles of horses. I am a printmaker and the work involved in the project consists of prints that use layers of related images and juxtaposition of unrelated images to accomplish my goals of cohesion between horses and the machinery that has replaced them. As the project developed the links between past and present society became my impetus rather the horse and mobility, and my future work will respond to this.

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CHAPTER 1

PROPOSAL

Introduction

When I began working with horses as imagery in 1995, I had little reason other than the abundance of material at my fingertips. Since I have been around horses for most of my life, it seemed only logical that an element so prevailing might have a profound impact on my work. In the same year I was introduced to printmaking, and after having developed a passion for this medium, horses slowly overtook my imagery and became the dominant force.

This led to research on Deborah Butterfield. Her use of life-sized horse sculptures constructed of found materials convinced me that I needed to bring some notion of the horse's role in today's mass produced culture to my work. Inspired by her grand scale, I started to work on life-sized compositions dealing with the juxtaposition between the naturalistic form of the horse and the geometric forms created by a computerized society.

This body of work exploited the benefits of the print medium to enhance the relationship between horse and society. I utilized every facet of printmaking, selecting whatever process was best suited for my ideas and the image I wanted to project, from the use of wood grain in relief printing to breaking horses down into pixels and geometric shapes through Adobe Photoshop and photographic printing techniques. Even the multiplicity of prints and their division into individual panels brought a notion of mass

production into my work. Each process acted as a representation of either horse or modern society, layered to create a single composition. I linked idea, image and process as closely as possible so that every aspect of a print has been planned-- even the paper on which it was printed. This body of work has led to more interesting ideas through researching the horse's integral role in the civilization and eventual mechanization of humankind.

Throughout history the horse has always been more than just livestock-- it has played a pivotal role in civilization, and many have argued that the last 6,000 years would have been dramatically different without the horse.¹ The significance of the horse throughout the evolution of past society is precisely what has allowed the resultant relationship between humankind and horse to become so long-lived.

Statement of Problem

Study of the horse's role in history has given me the desire to investigate the machinery that has replaced the horse, its resultant transportation system and the relationship between the two. Transportation has been the most dominant use for horses throughout history, so my work will emphasize the manner in which horses have affected modern roadways and mechanized transportation, creating visual links to evoke a pictorial response. I will address the following questions:

How can I compare horses to modern transportation machinery?

How can I link past and present transportation systems?

What means, other than image layering, can integrate my imagery?

¹ Clutton-Brock, Juliet, *Horse Power: A History of the Horse and the Donkey in Human Societies* (London: Natural History Museum Publications, 1992), 115 – 132.

What is the impetus for my work?

Methodology

I will create a series of seven to ten prints relating the horse's role in western expansion to our current transportation system as well as a series of prints relating the horse to modern society's mechanization of transportation. Elements from the contemporary transportation system (roads, interstates, autos) will be interlaced with equine imagery to accomplish my goals of visually linking the past and present roles of horses. Some of the pieces will read as time lines or historical diagrams of the effect that the horse has had on transportation, while others will relate components of transportation machinery to parts of the horse. The works will be shown in an exhibition and I will write a paper discussing the rationale behind my work.

CHAPTER 2

DISCUSSION OF THE WORK

Introduction

In order to begin developing a body of work related to my proposal, I needed a starting point. For a printmaker that can be an idea from a sketchbook, a piece of wood, a metal plate or even a blank sheet of paper. In my search for this beginning I came across a print from a prior semester that had a hoof composition woodcut layered over a laser printed map of Colorado circa 1868. This had been a previous experiment to link historic roads to horses, but in my mind had been unsuccessful because there was a limited distance between linking the two images-- it was too straightforward.

The start also came in the form of some long narrow zinc plate scraps I had been holding onto for about three years. These were plates that were so small and oddly shaped that I could not fathom what I would ever use them for, but my stockpiling nature convinced me to keep them. I had been contemplating working on some small prints, but these thoughts had subsided for some time as I had been working on life size horses and large prints for several years. But these plates were just lurking, begging me to put them to good use.

I began considering small prints but could not justify their importance based on the monumental nature of my previous work. My mind soon would change as I began developing ideas that would fit logically in this small scale that I had abandoned for so

long. My thoughts were only recently clarified when reading a juror's statement by Warrington Colescott and Frances Myers. They stated that, "The small plate or block can start as an afterthought, a scrap left hanging around, a little piece of stuff rescued from the box under the guillotine."² This is precisely how these small plates became my muse, but what may be more relevant is stated in their next sentence: "Beware, small scraps germinate small thoughts, but small thoughts have the power to grow into obsessions. The challenge of the small format can become formidable. Not to respond is unthinkable."³

The Oregon Trail Series

These plates, coupled with the previously mentioned print, served as the inspiration for the first series of prints created in response to my proposal: *The Oregon Trail Series*. My ideas and studies rooted in western history spurred in me the desire to create prints based on western expansion and the relationship between our past and present transportation systems.

I began considering layering old maps, new maps and images of horses to put all three of my ideas into one print, but the same problems arose that I had encountered with the Colorado print. Most problems dealt with formatting: trying to decide how to fit the entire Oregon Trail into a composition, so with the found plates in the back of my mind I worked on compositions to fit them when I was struck with a revelation. While preparing and layering transparencies I noticed that there was a stunning similarity between the

² W. Colescott and F. Myers, "Juror's Statement," *2001 Parkside National Small Print Exhibition Catalog*.

³ W. Colescott and F. Myers, "Juror's Statement," *2001 Parkside National Small Print Exhibition Catalog*.

routes of the Oregon Trail and Interstates 80 and 84 leading from Independence, Missouri to Oregon.

My ideas solidified, and after further researching the Oregon Trail to find the corresponding highways that follow the paths, I created compositions based on our current interstate maps. The series starts in Nebraska with a small part of western Missouri included in the first print as the start of the trail. I segmented the trail into sections relative to the time it would take to travel each section. This started by breaking down the trail into the specific states that it traveled through, but I chose to decrease the scale in sections that passed through rough territory because the progress would be slower. Larger states were also split in half to keep the scale and timetable proportionate so Nebraska, flat country at the start of the trail, has been divided into two relatively long prints. This division resulted in seven separate compositions creating a series of prints retracing the route of the Oregon Trail.

As work began on the prints for Wyoming and Utah, the horse elements fit naturally, but I still had not decided how to integrate the map. Several options were available: various transfer methods, photo plates, even laser printouts. I did not want to lose the color and glossy nature of the interstate maps, so the obvious solution was to chine collé the actual map onto the paper underneath the image of the horse.⁴

The first two prints were quite straightforward--cropped images of a horses printed over maps that were cut to fit the appropriate picture plane. The scale worked exactly as I had hoped. Past experiments with enlarging maps to fit other plates denied

⁴ Chine Collé is the method of adhering smaller pieces of paper to the larger printing paper as the inked image is being printed.

the overall image the aesthetic quality of a road map, while these succeeded by maintaining the original scale of the map. I had decided to use color related to the landscape of the state the map passed through, so *Wyoming* (fig. 1) and *Utah* (fig. 2) were printed in silvery gray typical of a mountainous setting.

While satisfied with the first two prints, I still felt that something could be improved for the remainder of the series. I sought to integrate the two images more clearly so that the idea would come across more convincingly. *Wyoming* and *Utah* still felt like my older prints, images constructed of layers working on juxtaposition between two ideas. But for this series the final goal was cohesion between two images to link the present transportation system with the horses that forged the original paths over one hundred years ago.

In dealing with Nebraska I had decided to split the state into two separate compositions, so Nebraska became two prints--*East Nebraska* (fig. 3) and *West Nebraska* (fig.4). My plan to assimilate the equine and map imagery more successfully was twofold. The first step was to find a way to incorporate the chine collé map with the image of the horse rather than just adhere it as part of the picture plane. Secondly I wanted to draw the horse with a more blatant linear quality, relating to the lines of a map.

In both Nebraska prints I started with a contour line drawing of the horse's anatomy and then proceeded to outline the value shapes within the horse. Subtle nuances and curves were added as a stylistic touch to associate the lines in the horse with the roads on the map. I then deeply etched the drawn lines so that they would hold a great deal of ink resulting in lines that were not only bold, but actually created a relief surface

on the paper that placed more emphasis on line. Soft ground and aquatint etches were used to hold value and color for the plate creating value shapes referencing the boundaries of a political map.^{5,6}

To more successfully incorporate the maps I chose to cut the map to fit the area occupied by the horse in *West Nebraska*. While this solution seemed obvious, the benefits were not recognized until the first proof was pulled. The map can be read as the skin of the horse, amalgamating the two images into one form. The roads of the map also can be interpreted as the circulatory system of the horse, a benefit that I had not expected.

Despite the successes of *West Nebraska*, I had different plans for *East Nebraska*. While working on the preparatory sketches for *East Nebraska*, I found that I had created a composition in which the backdrop for the hooves was dark band traveling at a slight upward angle to the left. When layered on top of the map, this section fit precisely in the area that the Oregon Trail passed--from Independence, Missouri eastward to Lincoln, Nebraska. Rather than place the map within the horse, I chose to cut the map to fit the negative shapes of the composition, except for the area through which the Oregon Trail passed thereby emphasizing the trail without showing it. The map, while seen more clearly, becomes the background for the horse but its level of treatment and focus does not diminish.

The successes of the two Nebraska prints would be combined and serve as the model for the remaining three prints of this series and I concentrated much more intently

⁵ Soft ground is an acid resistant coating that does not completely harden, allowing textures to be pressed into it and then etched to show that texture.

⁶ Aquatint is a process by which solid tones may be obtained on an etching by lightly coating the plate with powdered rosin or spray paint. The darkness of the tone is related to how deeply the surface is etched.

on planning each composition to amplify the correlation between the two images in the print. For the final three prints, *Idaho*, *East Oregon* and *West Oregon*, the process began with the section of the map to be emphasized. Once this had been determined, I searched for arrangements that would allow for the map to be highlighted in either the figure or the ground inside the picture plane.

I began with *Idaho* (fig. 5) and *West Oregon* (fig. 6), and these first two were more typical of the previous prints. For *Idaho* I worked from a drawing of a horse's neck in which traveled upward to the left, corresponding to the northwestern travel of Interstate 84 through Boise. The drawing was placed on the plate so that the area of lightest value would be the same as the location of Interstate 84 and the map could be shaped to fit this specific section.

I handled *West Oregon* in a similar fashion, utilizing the lightest area of value in a neck composition to accentuate the important area of the map, but one final print had me facing a conundrum. *East Oregon* (fig. 7) had been lurking in my thoughts because I had not yet decided how to handle the format of the piece. Rarely in printmaking had I forced myself to fit an image into a specific format; it had been my philosophy to not compromise any image by limiting myself by scale, process or format. The *East Oregon* portion had a unique layout to bear in mind when creating a horse composition to fit. The plate was a 4 ½ by 4 ½" square and the area of the map to be presented only occupied approximately thirty percent of the section to the upper right.

After much deliberation I came up with a drawing that seemed to fit precisely with the format. The final piece contains an image of a horse's head viewed at a three

quarter angle from the rear. This left the appropriate area of negative space in which to place the map. To be certain that the area of Interstate 84 was accentuated I added a fading aquatint to the upper right to conceal some areas of the map that were superfluous.

These seven prints would ideally always be viewed as a series. Each print leads into the next and creates a composition that would be relative in scale to the distance traveled following the Oregon Trail. Contrary to the direction in which we read text, the prints are designed to be viewed from right to left, corresponding to the east to west travel of the trail and the highways. In the perfect gallery setting I would be able to actually hang the prints to travel east to west, but I am satisfied with leading the viewer from right to left since it is easier to relate right to left with east to west than actually recognizing direction.

The final series is meant to read as a passage of time, but not in the sense of a typical time line counting upward from left to right. While we measure time in various numeral combinations, time is essentially based on the rotation and revolution of the planet, which can be broken down to varying degrees of light and dark based on dawn, day, dusk and night. Although I began using color to simply relate to the landscape of the represented state, as the series continued I considered the notion of time. I chose to darken the prints from east to west, signifying the change from dawn to night as well as spring to winter, relating to the amount of time it would have taken to make the cross-country journey on horseback or in your automobile.

I have found that working in series, often on two or three plates at the same time, has become one of the most productive manners to work. As each final print leads into

the next one while hanging on the wall, each plate in progress presented different challenges and solutions that benefited the following prints enhancing the cohesion of the series.

Suspension Systems and Horse Legs

My proposal consisted of two parts: I wanted to investigate both the machinery that replaced the horse as well as the transportation system that has developed from this change. I began with Oregon Trail Series and had found a link between our current highway system and the western expansion trails forged by horses. This led me to research the technology that spurred these changes in the roadways and how it could be compared with horses.

In comparing machinery to equine anatomy, I did not simply want to compare similar parts but instead wanted a true historic basis for the evaluation. I found that the earliest automobiles had suspension systems based on wagon designs that had limited success because of the difficulty to maintain drive power to the rear wheels. Engineers began researching methods to smooth the ride, and the legs of horses initially inspired something that seems so simple today. Engineers produced a hinged rear spring design based on the anatomy of the rear legs of horses, which eventually became the modern leaf spring that is still used in automobiles today and this provided me with the historical link to begin my analysis of specific manners in which automobiles replaced horses as our main form of transportation.

I began by searching through *Chilton's* automobile repair manuals for their detailed, exploded views of specific parts and entire sections of cars while researching the

history of automotive development. I found a wealth of visual elements in the *Chilton's* handbooks as well as historical links from the original suspension designs to some of those still in use today.

The first of this series of prints was *Live Axle Link-Bar Suspension* (fig. 8). This torque arm, half-leaf, coil system is used in rear wheel drive performance cars and was chosen because it is closely linked to the leaf spring system.⁷ The rear legs of horses, specifically the hips, create the majority of the power in a horse's movement so I wanted to use suspension from a rear wheel drive car to maintain as close a correlation between the two subjects as possible.

Working designs in my sketchbook, I came up with a layout that visually maximized the relationship between the *Chilton's* diagram and the drawn form of the horse's rear legs. To translate this into printed form I started with a 9 x12" etching plate upon which I would transfer the diagram to begin the print. I chose to transfer the image using a paper lithography method with a lift ground to give an accurate but somewhat rough translation.^{8,9} The weak lift ground also allows foul biting to take place leaving the plate with a rough, sometimes painterly texture.¹⁰ Since the diagrams are precise and line oriented, and the form of a horse is organic and based on value, I decided it was

⁷ The live axle link-bar suspension system was used by General Motors in the mid 1980's and used a half leaf spring and a coil spring to support the rear drive axles of the car.

⁸ Paper lithography is a process in which a photocopied image may be inked and printed onto an etching plate or paper.

⁹ A lift ground is an etching process in which an image is placed on the plate with a material that is soluble by a different solvent than the ground placed on top of it, allowing the image to be lifted from under the top ground.

¹⁰ Foul biting is an uncontrolled mark etched into a plate caused by pinholes in the hard ground or a prolonged etch of a weak ground.

necessary to place the diagram within a field of painterly value texture to make the overall print more cohesive.

Once the plate was complete and printed I added the rear legs of the horse based on simplified value shapes from a lithographic stone to the right of the composition. Still not satisfied with the overall clarity, I added another layer of light value over the top, creating negative shapes that echoed the overall form of the legs, merging into the diagram of the suspension. The final composition combines the two images, integrating them in a manner to demonstrate the evolution created by technology and our need to travel more quickly.

Specific elements of *Live Axle Link-Bar Suspension* led me to a new approach for my next print, *Camber and Toe Adjust* (fig. 9). The strength of *Live Axle Link-Bar Suspension* was its solidity in formal organization, but I realized that a print could be more effective if the viewers are not given the key to the visual problem that is posed to them. I believed that if I could present two images in a stance of juxtaposition while allowing some elements to create a subtle link between images, the viewer would be invited to find these connections rather than having them spelled out clearly.

I began again by transferring the diagrammatic imagery but accentuating the foreshadowing, creating a more painterly value range, thereby obscuring the clarity of the line diagram and placing it in an uncomfortable environment. The drawn image of the front legs of the horse was then added from a lithographic stone, but after the image was drawn onto the stone, I transferred the same numerical labeling system that is used in the

Chilton's diagrams. Lines were drawn so that the numbers pointed to random areas of the horse legs.

This simple side-by-side composition creates juxtaposition between the horse legs and the suspension system, allowing the viewers to draw their own conclusions concerning the relationship between the two images. Each element of the print is placed in the opposite environment of which it would be expected to appear. The front legs exist on a stale black and white page, numbered repetitively with vexatious lines disrupting the form, while the delicate line work of the diagram is obscured in random fields of value. These elements within the separate compositions work to create unity between the two apparently unrelated forms.

These prints have led to a series of work in print and drawing that relate various parts of cars to portions of equine anatomy, dealing with either function or structure. Each print or drawing approaches each image in a different manner, either by dissecting structures or layering related components, but each piece has a similar underlying message, creating a unified series of work, complemented by the *Oregon Trail Series* and my other prints based on western expansion.

CHAPTER 3

CONCLUSION

I began by approaching my proposal as a problem to solve by researching and creating several works of art as a discussion of my thoughts and solutions. Initially I viewed this proposal as a limitation of the ideas I would explore and the work I would produce over the course of a year. While working in support of this proposal, experiencing the creation of various series of prints and the growth of idea and approach from print to print, my view of my work changed.

As I developed the work for the project I realized that I had been searching for ideas to incorporate horses into my art. The use of the horse as an image and idea is what was driving the work, and these new ideas concerning mobility, time, and past vs. present all related back to my desire to work with horses. But by elaborating on these new ideas more than I have in the past, this new body of work has piqued my interest in relating my work to subjects beyond horses.

As the project has come to a close, I have begun working on new ideas relating the past to the present that do not include horses, but are purely examinations of changes in society over time. It seems that my exhibition title, *Replacing the Horse*, has become not only a statement concerning my project's work, but has also become a metaphor for the future of my artwork.

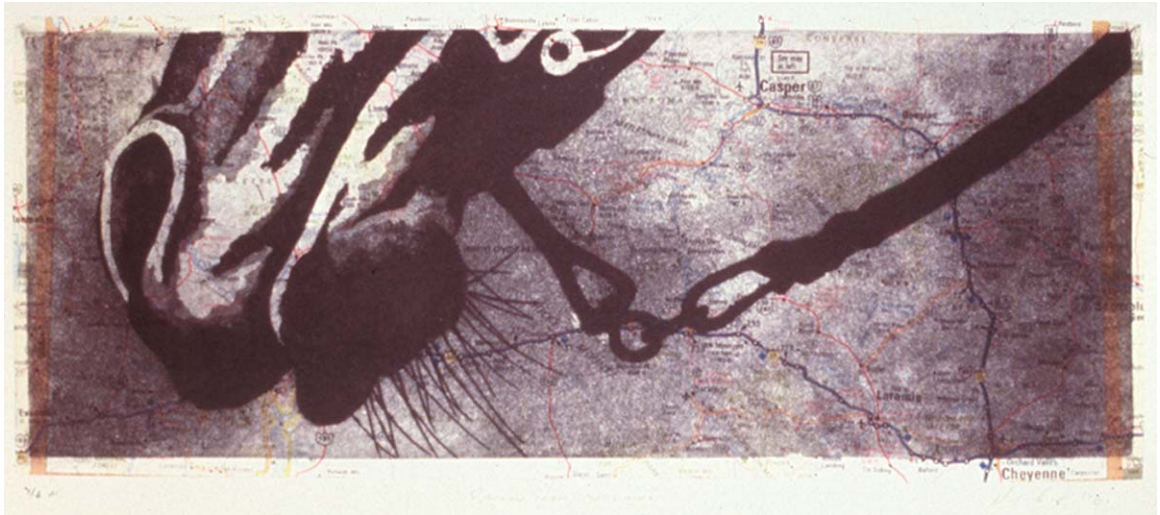


Figure 1. *Wyoming*, Etching, 10 x 4"

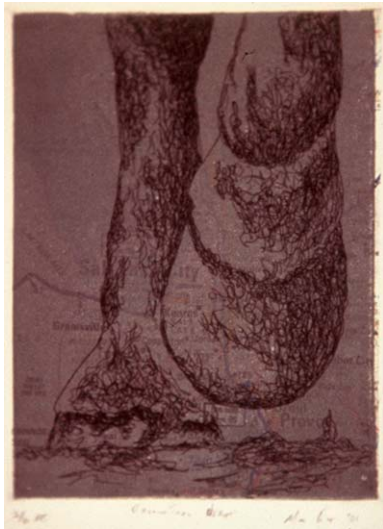


Figure 2. *Utah*, Etching, 2 ³/₄ x 3 ³/₄"



Figure 3. *East Nebraska*, Etching, 9 3/4 x 3 1/4"

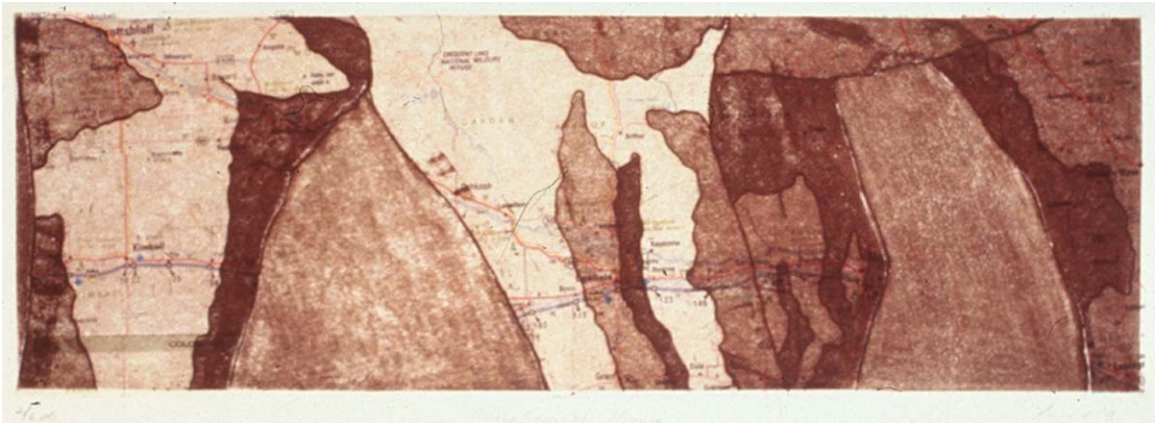


Figure 4. *West Nebraska*, Etching, 9 $\frac{3}{4}$ x 3 $\frac{3}{4}$ "

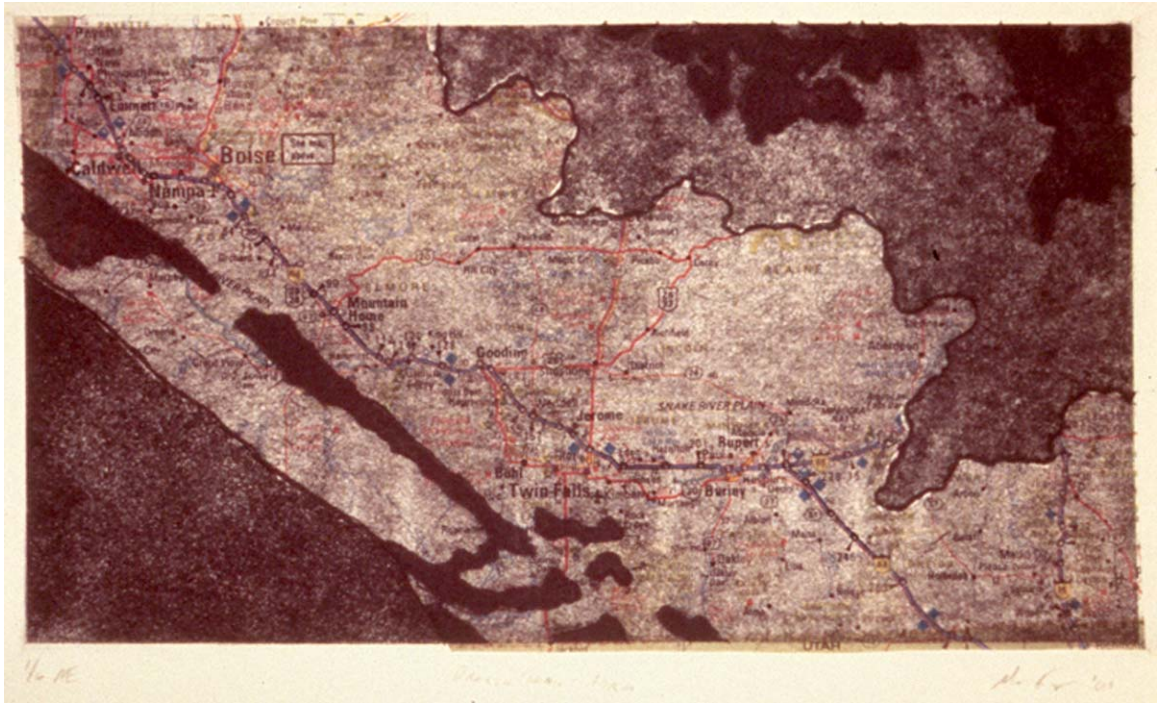


Figure 5. *Idaho*, Etching, 6 $\frac{3}{4}$ x 3 $\frac{3}{4}$ "

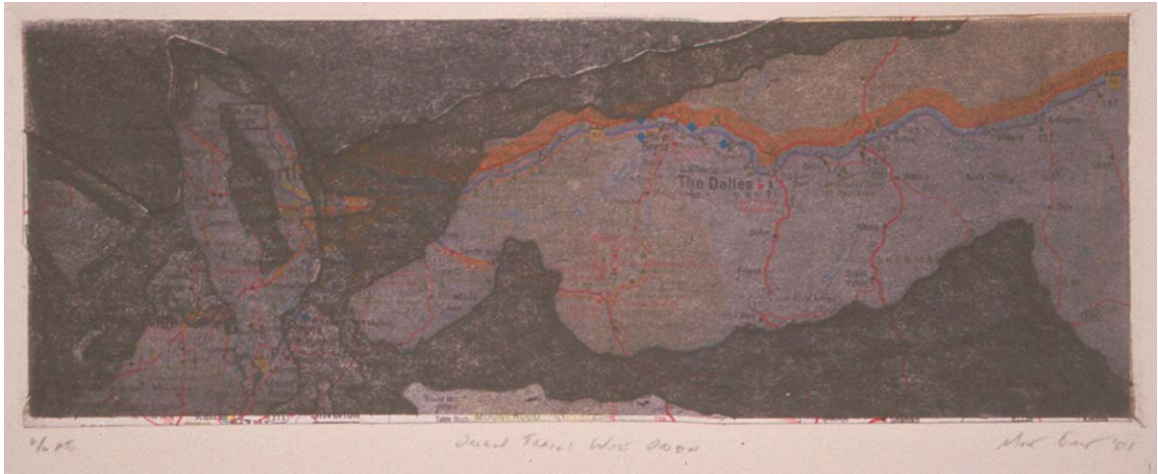


Figure 6. *West Oregon*, Etching, 7 ³/₄ x 2 ³/₄"

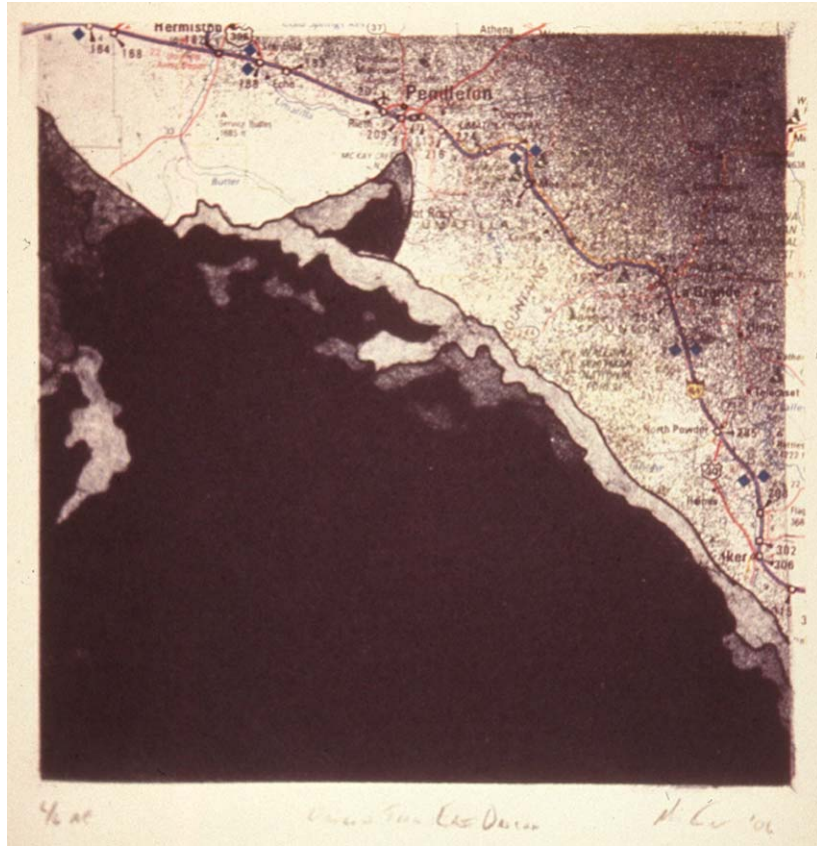


Figure 7. *East Oregon, Etching 4 1/4 x 4 1/4"*

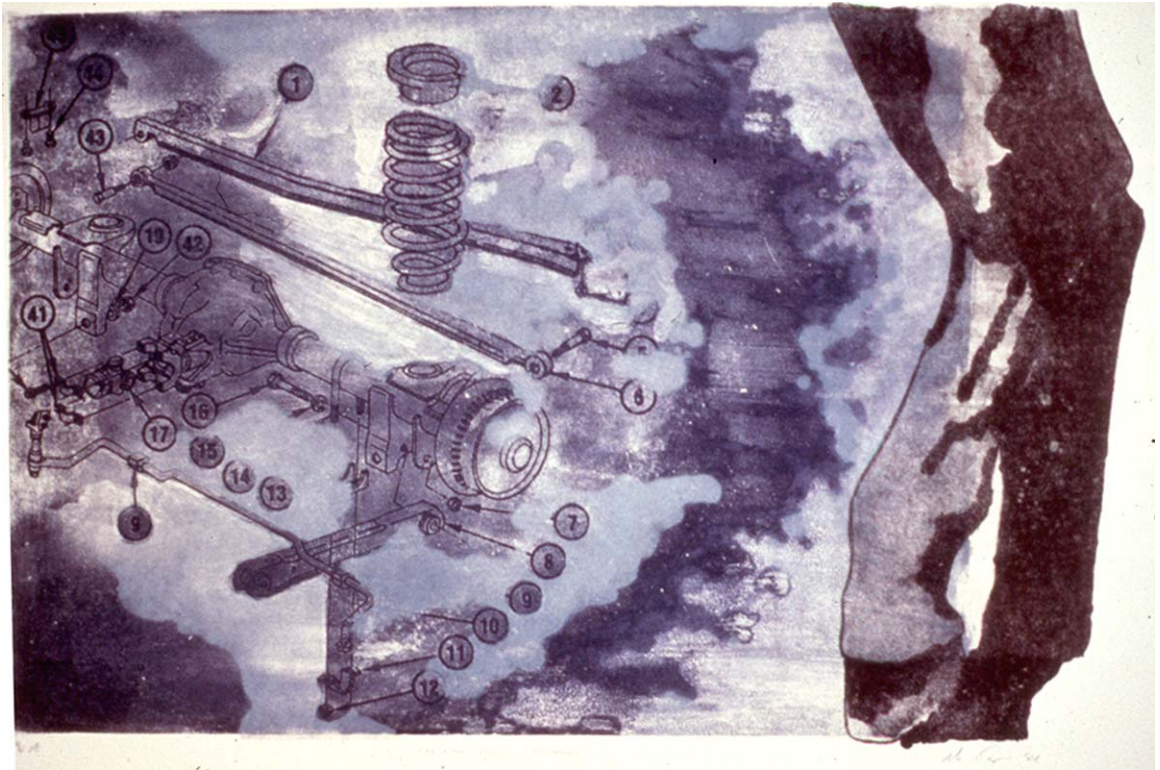


Figure 8. *Live Axle Link Bar Suspension*, Etching and Lithograph, 18 x 13"

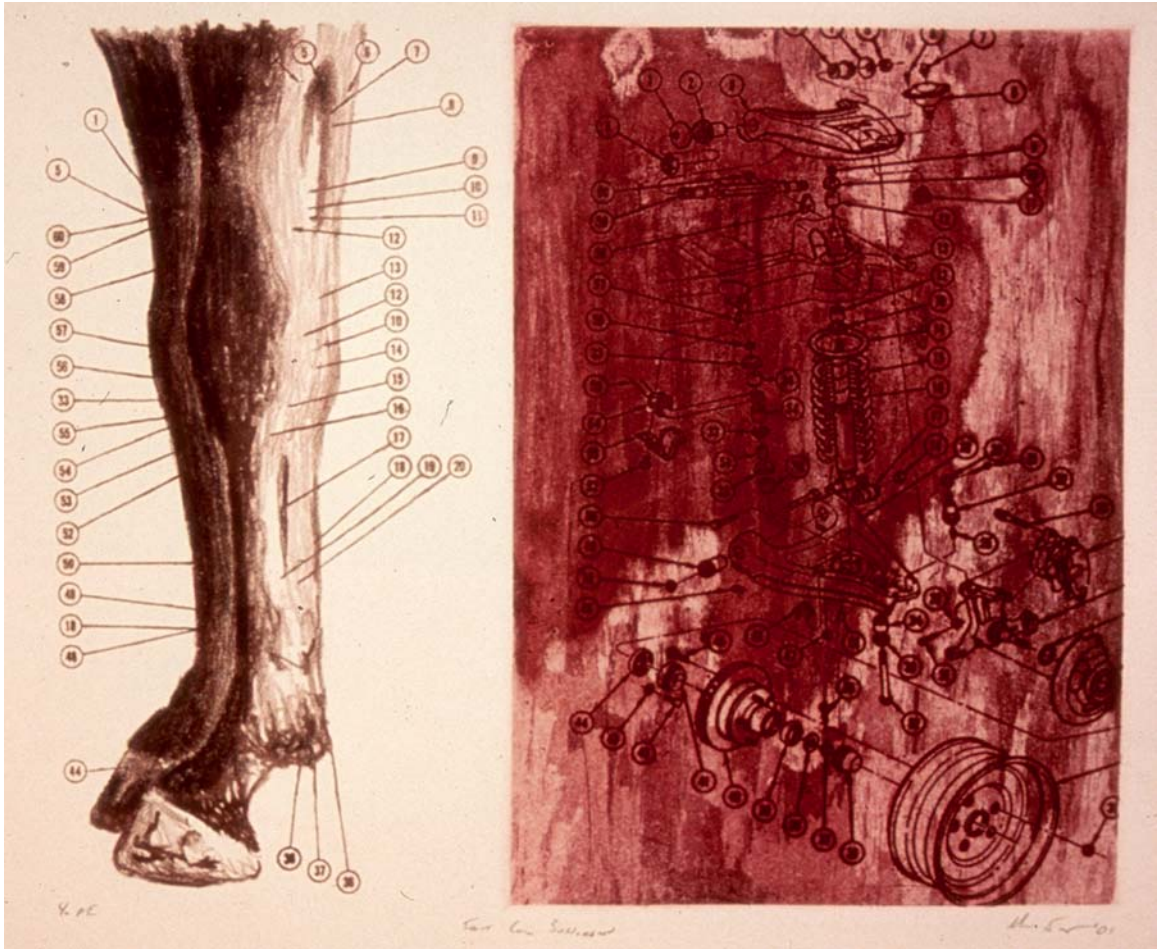


Figure 9. *Camber and Toe Adjust*, Etching and Lithograph, 15 x 14"

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