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### Relics

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Rochester Institute of Technology

A Thesis Submitted to the Faculty of  
The College of Imaging Arts and Sciences  
In candidacy for the degree of  
Masters of Fine Arts

# RELICS

*By*

*Rex Kalehoff*

November 11, 2011



## *Final Approvals*

Chief Adviser: Rich Tannen \_\_\_\_\_

Date: \_\_\_\_\_

Associate Adviser: Andy Buck \_\_\_\_\_

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Associate Adviser: Bill Middleton \_\_\_\_\_

Date: \_\_\_\_\_

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Date: \_\_\_\_\_

## *Dedication*

To my family.

Thank you for the amazing support and encouragement.

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## *Abstract*

'RELICS' is a group of familiar, yet evocative objects, handcrafted in wood. Inspired by first-hand experiences living abroad, each sculpture aims to represent the physical remains and ideologies of past cultures around the world. The work reflects gently on universal themes of cultural persistence and survival, and presents a thoughtful investigation into our current patterns of living. My message is in support of a sustainable future, celebrating diversity, and nurturing nature.

## *Preface*

It is with great satisfaction that I am submitting this MFA Thesis report in conjunction with my Thesis exhibition, entitled 'RELICS'. I am delighted to have this opportunity to share more about the development and meaning behind this body of work.

Over the past 10 years, I have made numerous trips to Australia and South East Asia, from one month to over one year in duration. There were several motives driving those trips, including study, family, work, and travel, however, they also proved to be periods of my most significant research and personal discovery. Those experiences have been the primary source for this thesis work.

Along the way, several factors have added to my developing awareness of the world, teaching me about diversity, history, ecology, geography, and the natural environment. In this written thesis, I will discuss how these elements of my experience inspired and pertain to my work. I will provide anecdotal accounts, and cite several additional literary sources. It is my hope that this thesis will convey the unique perspective of a man living as a modern day explorer and artist, and open meaningful discussion on the associated subject matter. For readers who are interested in the technical aspects of the work, an elaborate description of the methods and processes employed for each sculpture, are included in the write-up for each piece.

The ideas explored in this paper were developed alongside and with the assistance of my Thesis Committee. The members of my committee were all located right on campus at RIT, and were selected for their individual expertise, in three areas, principal to my thesis project. As a student in the School for American Crafts' Wood Department, my studio work would be conducted in the Wood workshop, so I selected Rich Tannen, Head of the Wood Department, as my Chief Advisor. He and Andy Buck would assist me primarily with technical issues in wood, throughout the development and making of the work. Elizabeth Kronfield, Head of the Sculpture Department, in the School of Art,

would be called on for matters associated with reading and developing the content and concept of the work. Finally, Bill Middleton, Associate Professor of Archeology, Department of Sociology and Anthropology, College of Liberal Arts, contributed a great deal, sharing his knowledge and enthusiasm of the world and its cultures. Of course, each member had more to offer than that which concerned their own particular field, so there were wonderfully diverse viewpoints discussed during group meetings, which complimented all of my research and creative input for this project.

## *Manifesto*

1. I am an artist. Creativity is vitality. Give life to art.
2. Clarity and order in my work and environment. Simplicity.
3. Demonstrate care and respect with my chosen materials. Know stone and wood.
4. Honor traditional techniques. Consider the masters of the past. Create a new vision.
5. Combine fine craft with meaningful concepts and content-driven art.
6. Work in devotion to the natural environment. Bring nature to others.
7. Think like a Purist. Embrace authenticity.
8. Work for the self, in service to others. Connect with people.
9. Remain free and curious.
10. Observe and engage with the diversity of the world. Live in other geographies and cultures.

# *Introduction*

In this section, I will introduce the thesis topic, and establish the main sources of research and inspiration.



## *Relics*

The word “*relics*” brings to mind images of mysterious artifacts from another time and culture. I picture archeological sites and the remnants of ancient civilizations from around the world, and imagine what the world was like during those times. “Relics” are fragments of the past, which portray pieces of human history on earth. When viewed in the context of modern society, the remains of past cultures can offer great insight into the way we live today. The monumental stone sculptures of Easter Island, for example, are reminders of a culture that once flourished, but failed to endure the depletion of its own resources. In his book, ‘Collapse’, Jared Diamond argues that the rapid deforestation of Easter Island led to its depopulation, and the collapse of its society. I think of the continuing impact of the over-exploitation of natural resources in the world today, and I draw a connection to the destructive patterns of past cultures.

In the same way, this thesis, entitled ‘*RELICS*’, examines remnants of past societies and reveals examples of great successes and failures throughout history, which raises questions about our current ways of life. We are presently in a time of constant fear and war, environmental degradation is rampant, and unsustainable manufacturing processes and technologies continue to advance rapidly. Through an investigation of historical references and symbols, this thesis addresses some of these issues presently affecting the shared experience and future of our world-nation.

## *Research*

I am fascinated by the world’s diversity and humbled by the vastness of time and history. Personal experiences and observations overseas challenge and inspire me. I thrive while living abroad, collecting information like an anthropologist, archeologist, historian, and naturalist. This way of studying the world has become an integral part of

my artistic practice, and this thesis emerges from a combination of my interest in ancient cultures and my growing concern for the ecological state of the world.

My world travels began when I was 20 years old. I went to study sculpture in Sydney, Australia, and I was literally spellbound by its unspoiled natural beauty. Abundant were beaches with no footprints, natural rock pools I could drink from, and wildlife I had never seen before. I developed a love for nature and a passion for life that heightened my awareness of the world. Since then, I have revisited many times, and spent a total of three years in Australia, to further explore its stunning coastline and wilderness areas. I received formal training in Australian botanical studies, geology, and at the same time uncovered a startling history of the human exploitation of the landscape. What I witnessed were some of the most pristine and wild places on Earth, which were, sadly, under constant threat of human impact. I joined local environmental groups, including artists, designers and craftspeople, and began creating artworks having to do with the paradoxical relationship between nature and culture. My experiences in Australia have consistently been times of great intimacy with the earth, and have significantly informed my thesis work.

At the end of my first year in Australia, I travelled to South East Asia, and spent three months in Thailand, Laos and Cambodia. It was a completely different world of exotic foods and languages, rice fields and coconut palms, golden temples and shrines. Both in bustling city environments and in countryside villages, I discovered a cultural heritage deeply rooted in generosity, respect, and tradition. Ancient customs were engrained in modern-day society, and Buddhism was practiced in every facet of daily life. Historic sites such as Angkor Wat in Cambodia, The Plain of Jars in Laos, and the ruins of Sukkhothai in Thailand, among others, transported me back in time. I was completely captivated by the mystery and charm of the region, and returned several times, to live in the presence of the ancient world. In total, I spent three years there, and developed a great appreciation for foreign cultures and a passion for studying past civilizations. Those experiences have been another main source of inspiration behind my thesis work.

## *Symbols*

'RELICS' consists of five sculptures, handcrafted in wood, each one a contemporary representation of an object from the ancient world. Drawn from my own studies and observations stated above, each object is a symbol, rather than a re-creation of an original artifact. My intention is to provide visual imagery, which reminds us of the past, speaks of the present, and asks us to contemplate our future, and that of the planet. Touching upon issues of impermanence, I aim to create a platform from which to look outside of ourselves and consider our impact upon the Earth, and our own survival. In an attempt to speak to the widest audience, the objects I have selected should be recognizable to everyone, regardless of age, culture, or background, and readers and viewers are invited to examine the works with regards to their own cultural background or personal history.

## *Wood*

I originally joined RIT's Graduate Wood program in order to formally learn the techniques and tools employed by fine woodworkers and furniture-makers. As a wood sculptor, I recognized a whole world of woodworking there that I wanted to connect with, as I strived for a greater skills base and level of integrity in my own work. The course included comprehensive technical demonstrations and exercises, machine maintenance instruction, and exposure to studios and techniques of master craftsmen and professional woodworkers. Through the extensive three-year MFA course at RIT, I had the opportunity to study wood intensely, in every aspect of its physical and structural qualities, as well the various tools and machinery that are used to manipulate it. 'RELICS' demonstrates my newly acquired skills in wood, in an attempt to portray the above concepts, in a cohesive group of sculptures.

## *The Work*

In this section, I will describe the conceptual and aesthetic considerations for each of the works, and give an explanation of the technical processes employed for each one.

*Vessels & Chair*



Mahogany  
60 x 29 x 28 in

## *Vessels & Chair*

Part of my MFA coursework was to design and make a chair. A chair is truly a utilitarian object, but my aim was to look beyond traditional notions of chair design. At the time, I was very much trying to integrate my sculptural interests into different forms of furniture. For this chair project, I came up with *Vessels & Chair*. It was this project that shifted the way I thought about furniture and sculpture, and it became the catalyst for the rest of my thesis work.

## *Development*

I began the design process for this project with a visual study of ancient artifacts from around the world. I collected images from my own photographs, as well as *Archeology* and *National Geographic* magazines, and then made freehand line drawings of a variety of tools, vessels, figures, weapons, skeletal remains, and ritual objects (fig. 1). These line drawings then triggered ideas of chairs made from assembling those objects. The idea of carving numerous artifacts in wood excited me, but I couldn't justify arranging those objects into the form of a chair.

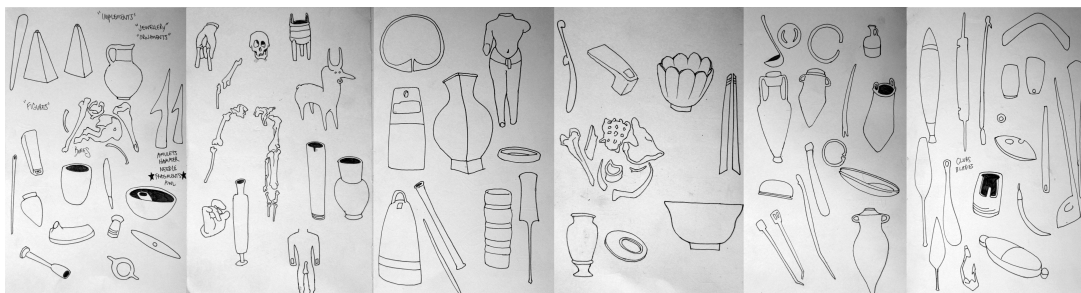


fig. 1: Original line drawings of various artifacts

I made the decision to add a chair to the group of objects, instead of making the objects look like a chair, and everything fell into place. The chair became one of the

artifacts! I focused in on associations of containment, ritual, and daily use, and chose to include only a group of jars and vessels, with the chair, which would be designed with reference to indistinguishable ancient origins: eccentric proportions, bold lines and forms, and an enigmatic presence.

I then needed to consider how I should represent these ancient items, often damaged, cracked, or weathered in appearance. My aesthetic intentions were to create clean flawless surfaces, and perfect forms, so a *faux-ancient* look was out of the question. I thought of archeological sites, and how objects are often discovered only after digging, and left half-buried to preserve their fragile state. My solution was to recreate this scenario. I would create a base that represented the ground in which the chair and the objects were buried. Further sketches followed and I had the final design, where the ground/base was contained in the footprint of the chair, and the vessels lay scattered beneath the seat (fig. 2). The piece became a small section out of an archaeological site. I was reminded of my own visits to Ban Chiang's 5000 year-old burial sites in northeastern Thailand, displaying the original 1970's dig, where jars, weapons and skeletal remains were discovered.

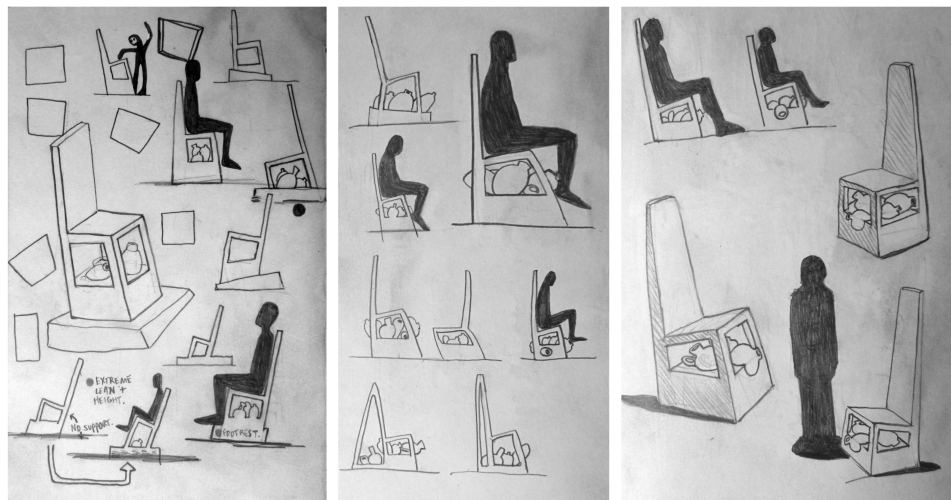


fig. 2: Developing sketches of Vessel and Chair

## *Time & Culture*

The objects themselves beg explanation. The stature of the chair could suggest a figure of power, yet there are only common vessels beneath it, as opposed to weapons or ornate objects. The chair could speak about a domestic realm, or just as easily, it could be a ritual or burial site. The five vessels, of different proportions and functions, become a symbol for the presence of an unknown culture. They represent the utilitarianism of simple everyday objects. What more can these objects imply? As the title infers, the chair wasn't *the* object. Instead, it became an element in a larger composition, laden with content. In this way, it was exciting that this piece was more than just a chair, however, the functionality definitely heightened the conceptual implications in this piece. It is utilitarian but can stand alone as sculpture.

*Vessels & Chair* speaks of an ancient time and hints at the preservation of ancient artifacts. It is ancient but its surfaces are pristine and its edges are sharp. There is no sign of use or sense of age. It is a thing out of its time, but it is timeless. It speaks of cultures, but is cultureless. These anachronistic and enigmatic qualities strengthened this piece and carried through to the rest of my thesis work.

## *Technical Notes*

Technically, this piece was a great challenge. Made of solid mahogany, it consisted of several interlocking parts, each of which required a variety of techniques to create. The back of the chair was a solid slab, more than 5 feet long, tapering in its length and in its thickness. To achieve the taper in the thickness, I built a taper jig for the wood to sit in during the milling process. A taper jig props up the stock at a desired angle, but the planer blade still cuts parallel to the bed, so the result is a tapered cut (fig. 3).





fig. 3: Taper jig

The 1 ¾ inch solid seat included 4 massive hand-cut integral thru-tenons, which fit snugly into huge square mortises cut into the back of the chair with a 1-inch wide flat chisel (fig. 4). I created a frame for the front of the chair by long-grain gluing the parts, which included the legs, the front edge of the seat, and the front face of the base. I chose to miter the front of the seat so the grain would wrap around the front of the chair, giving the piece a more solid and pronounced appearance. Through trial and error, I fit side faces to the compound angles of the base, joined them with mortise and tenons, and then created a top face for the base, which also needed to be mitered and notched out perfectly around the two front legs.

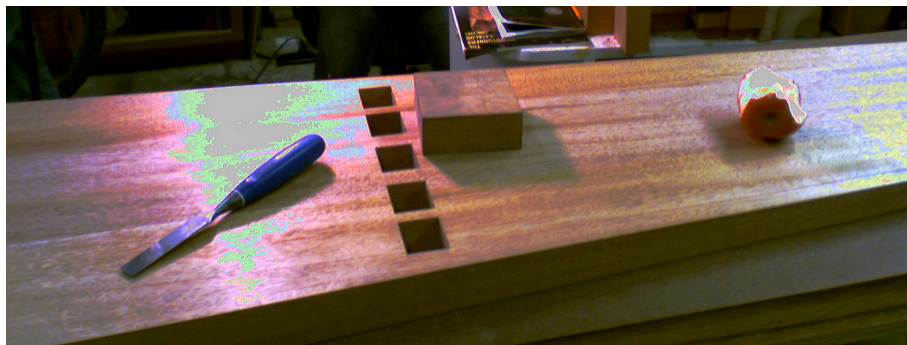


fig. 4: Hand-cut mortises in the tapered chair back

With all parts pieced together and glued in the right order, they formed a structurally sound chair. I purposely created odd angles in the legs and on the base, so that the chair would appear to be buried at an angle, like the vessels. Appropriate joinery

assured the piece would be functional. Although the chair tilted back and to the side, it was counterbalanced in the base, and could safely be sat in.

To create the vessels, I laminated several 2-inch thick off-cuts of mahogany door stock to make nice solid blanks for the lathe. After turning and sanding, (fig. 5 & 6) the challenge was to carve away at the vessels so they would sit flush on the base at desired angles. This part was especially important to create the illusion of the objects being half-buried. I determined the angles I needed to cut and marked it on each vessel. I then made a simple yet effective jig, which was essentially a wooden frame that I could use to stabilize the vessel by screwing the waste material into the frame and cutting the angle on the bandsaw. In some cases the vessel wrapped around two sides of the base, which required some trial and error to fit. The precision contact points are what made the illusion believable. To secure the vessels, I screwed them firmly to the base from the underside, completely invisible and removable.

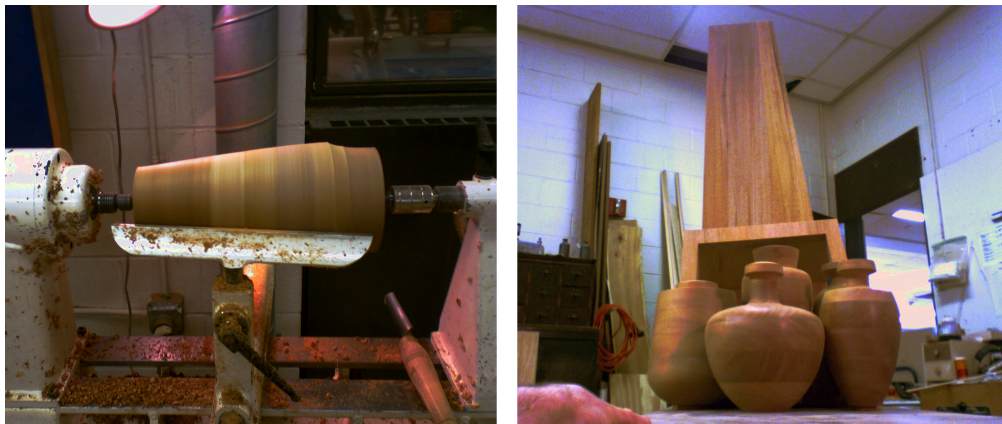


fig. 5 & 6: Turning the vessels

## *Achievements*

*Vessels & Chair* was a great achievement that inspired the rest of my thesis work. After finishing this piece, I realized that my intentions for my thesis would be to create sculpture, and focus on the conceptual implications of the work. Speaking of both

culture and time, I was able to tap into significant experiences of my own, yet *Vessels & Chair* successfully made reference to other cultures in a way that did not single out any one culture or group.

With this piece, I had made a huge shift from making abstract works to purely representational work. I enjoyed that people could recognize the objects and create their own story about them, or read and add to mine. I learned that I could speak with a more universal language, creating images of familiar objects.

I also felt that the marriage between the concept and aesthetic of this work was perfect. The image itself clearly made reference to the past, juxtaposing nicely against the clean lines and pristine surfaces of the wood. This was the most intriguing aspect of the piece for me. I termed this combination/aesthetic “*ancient refined*”, and opted to bring these qualities forward into every element of my thesis work. The original line drawings of artifacts I did for this piece also became an important reference while developing the rest of my thesis work, and inspired the concept and title for ‘*RELICS*’.

## *Buffalo Cart*



White Oak  
140 x 66 x 42 in

## *Buffalo Cart*

*Buffalo Cart* was created in response to *Vessels & Chair*. The tone had been set, and the references to time and culture in this next piece were imminent. My thesis committee challenged me, this time, to create another work that was rooted in function, but could speak like sculpture. After the chair project, I wanted to look beyond the domestic realm of furniture and functionality and speak with a more loaded and unexpected image. I thought of my own encounters with objects in the ancient world, and recalled the commonly seen buffalo cart, from South-East Asia. This was a perfect symbol, emanating references to history and utility, and the technical demands to build it were challenging and suitable for a substantial thesis piece.

## *Ancient Implement*

For thousands of years, animal-drawn carts have played an essential role in the development of human societies around the world. They are historic implements, with strong references to ancient agricultural practices, transportation methods, and of course, go hand in hand with the animals that powered them. The buffalo cart is a recognizable image, to people across cultures, and it speaks, individually, about cultures. Yes, it is an ancient tool, referring to ancient times, yet, the buffalo cart is still widely used today; I literally lived amongst them in rice-growing communities in Thailand, Laos, and Cambodia. I can imagine a time when people grew and traded their own food in simple and traditional ways, but the buffalo cart also points to the onset of technological advancements and the agricultural revolution.



## *Domestication of Animals and Food Production*

The domestication of animals was a huge evolutionary step towards the modernization of societies. *Buffalo Cart* refers to the use of draught-animals, like oxen or buffalo, which brought greater productivity and efficiency to growing and transporting crops. In the book 'Guns, Germs, and Steel', Jared Diamond speaks about four distinct ways that livestock could feed more people: by supplying meat, milk, and fertilizer, and by pulling plows. Societies that possessed domesticated animals not only began to set up agricultural systems, but also stored food, fed more people per acre, and with a higher birth rate, achieved a higher population density. Diamond continued on to say, "The resulting surpluses, and (in some cases) the animal-based means of transporting those surpluses, was a prerequisite for the development of settled, politically centralized, socially stratified, economically complex, technologically innovative societies." (92) Interestingly, the aboriginal Australians never acquired food production methods, or domesticated animals for agricultural means, and so remained a hunter-gatherer society.

Throughout the world, beasts of burden were at the center of cultural and economic progress. In some cases their absence proved to be detrimental to the survival of a society. In "Collapse", Diamond speaks more about the role of draught-animals in early societies: "Unlike Andean Indians with their llamas, and unlike Old World peoples with their horses, oxen, donkeys, and camels, the Maya had no animal-powered transport or plows." Diamond goes on to say, "The modest productivity of Maya agriculture, and their lack of draft animals, severely limited the duration and distance possible for their military campaigns," (165) ultimately contributing to their fall. It is amazing to think how such a common innovation can affect history in this way.

## *Observations*

*Buffalo Cart* is a life-size representation of an historic agricultural tool, and is accompanied by a yoke and cowbell. Standing in the presence of this piece almost brings the viewer back in time; it is another anachronism, clearly from an ancient period. The cart stretches across the room at more than 11 ½ feet long, with the wheels standing more than 5 feet tall. To personify this object, it stands proud and capable; its sound construction is visually striking, and really adds to these qualities. The curved bed of the cart is wide and accepting of any cargo. The joints and load-bearing elements are strong and solid, and the massive hubs and underside structure further suggest it would have handled significant loads. Everything about its construction speaks of function and utility. The cart's potential to perform excessive duties is unquestionable.

However, based on its appearance, *Buffalo Cart's* associated functionality is in great contrast to the surface and aesthetic qualities of this piece. It is almost too clean and precious to do the type of work mentioned above. Meticulously crafted entirely in white oak, with only wooden joinery, and no nails or screws, the unfinished natural surfaces glow in uniformity and freshness. At a closer glance, each surface is finely worked, revealing subtle detailing and modest shaping. Each and every member of the entire cart has been softly chamfered or faceted, blurring the line between natural wear and aging, and the intentional marks of the maker. The piece is in pristine condition, yet almost appears slightly used, and abandoned.

The advanced construction of this cart, along with its elegant curves and delicate detailing of the parts, suggest a more sophisticated and developed society that built it. However, the use of traditional bolts or fasteners, banding around the wheels, lashing, or leather reinforcements, is completely absent. Only the wooden elements are there, adding to the mystery and unique appeal of the piece.

The yoke and the bell are highly indicative of the presence of a beast of burden. These elements lay arbitrarily on the floor at the foot of the cart, as if they were left there in preparation, to be strapped to some animal. The yoke would be used to connect two oxen or buffalo to the shaft of the cart, and the bell would keep the owner alert of the animals' whereabouts. The surfaces and edges of these objects are as crisp and clean as the cart, and are also built to function.

So where are the buffalo? Interestingly, *Buffalo Cart* is possibly more suggestive of the absence of the buffalo, than it is about the buffalo. Along with the absence of the buffalo, goes the absence of its function. Is this a sign of a by-gone era? This brings me back to one more compelling point, concerning the scale of the cart and the absence of the buffalo. The grand presence of *Buffalo Cart*, along with its durable construction, is convincing, and we can visualize putting the cart to work behind two live buffalo. However, real live buffalo are much larger than this cart could accommodate, making this a “miniature buffalo cart”. Adding to the enigmatic qualities of this work is the thought of two pygmy-buffalo standing next to it.

### *Developing a Model*

I began this investigation by looking over personal photographs from my own travels, and then familiarized myself with images of different animal-drawn carts from around the world. Instead of copying or referring to a design from a specific culture or style, I began my process by doing sketches, from memory, combining elements of different types of carts. Based on those sketches, I then made a small-scale wooden model, designed with my own aesthetic sensibilities (fig. 7). The model told me what the cart would look like stylistically, but what it didn't tell me was how the wheels connected to the cart, or how the load-bearing structure on the under-side would be built. These issues obviously became major tasks later on. From the model, however, I did create full-scale, top and side view drawings of the cart. The full-scale drawings helped me correct and finalize



proportions, work out subtle details, and measure and place each member in relation to the other parts.

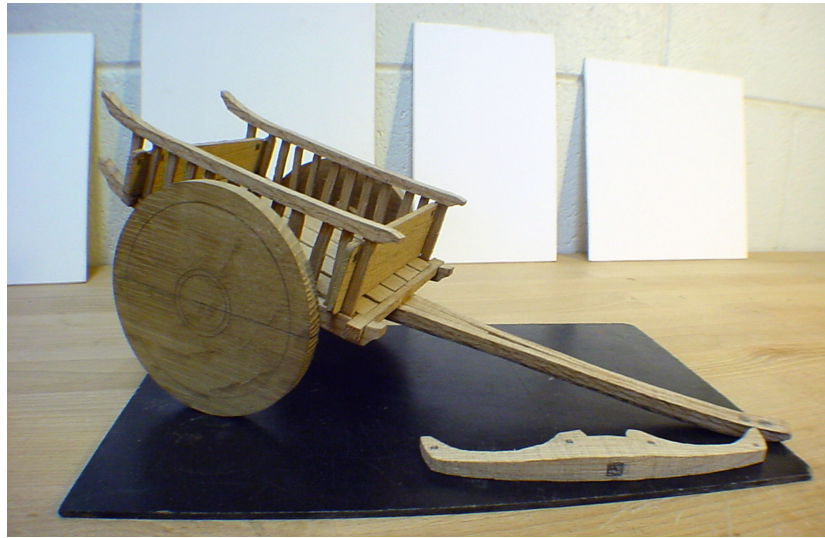


fig. 7: Original model of *Buffalo Cart*

First and foremost, I wanted this cart to be functional. Although it was a sculpture, *Buffalo Cart* was to be made well, and actually work. Its ability to function, would in fact add significant content to the piece. To achieve a structurally sound, working cart, would require quality timber, thoughtful engineering, and decent craftsmanship.

My goal, again, was to achieve a monochromatic surface with natural wood, so each and every element of this sculpture was to be made out of a single timber. Favoring a lighter toned species with predictable grain, I selected white oak for its strength and durability. Throughout the process, as I needed more material for the project, I was careful to select similarly toned white oak, as it can sometimes vary slightly in more yellow or grey tones.

## *Technical Notes*

The building of *Buffalo Cart* was a slow and steady year-long process. I had never taken on the challenge of building something so large before, and its structural demands called for careful consideration. I was happy to take my time building this piece, as it was new territory for me to be working in this way.

Constructing the wheels of the cart, alone, was an extremely demanding process, and the relative proportions of the wheel parts to the cart were important to be consistent with the overall form of the piece. I created the rims of the wheels with octagonal frames held together with spline joints (fig. 8), so the hubs and spokes could be dropped into dados in the side of the rim of each wheel (fig. 9)



fig. 8: Octagonal frame with spline joints

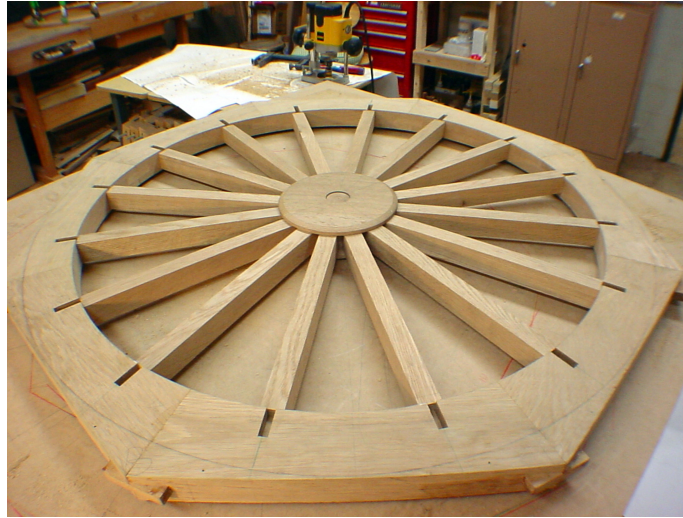


fig. 9: Hub and spokes dropped into dados in the rim of the wheel

Heavy 3-inch thick, 9-inch diameter hubs were laminated with quarter-sawn stock of white oak, and turned on the lathe, following the hub-profile I had made in my full-scale drawings. A channel was created in the outer rim of the hub to house the base of the spokes, an essential part of the construction to create the clean and refined appearance in an area of the piece that was so complex with structural requirements. Each of the 32 spokes were shaped identically, tapering in width and thickness, and joined to the wheel and hub with integral tenons. After gluing up all the parts for the wheels, I was astonished at how solid they were.

Interestingly, my method of constructing the wheels probably differed greatly from traditional ways. However, I think this contradiction actually potentially adds to the story and enigma of this piece. The final detailing on the wheel included tapering the thickness of the rims and slightly doming the tread of the wheel.

For the construction of the bed of the cart, I referred to my model and full-scale drawings, and built the frame with substantial steam-bent side members (fig. 10) and thick cross members. I utilized heavy cross-lap joinery to join these parts, however, this task required deep consideration. Every element in the construction of the bed of the cart, including the addition of the shaft and the axle, and its housing components, would be load bearing, with various physical, mechanical, and gravitational forces to take into account. To build what would become a complex, interlocking, self-supporting

structure, I dropped the front and rear cross members into the top of the steam-bent parts, and joined another two cross members to the underside, for added stability towards the center of the frame.

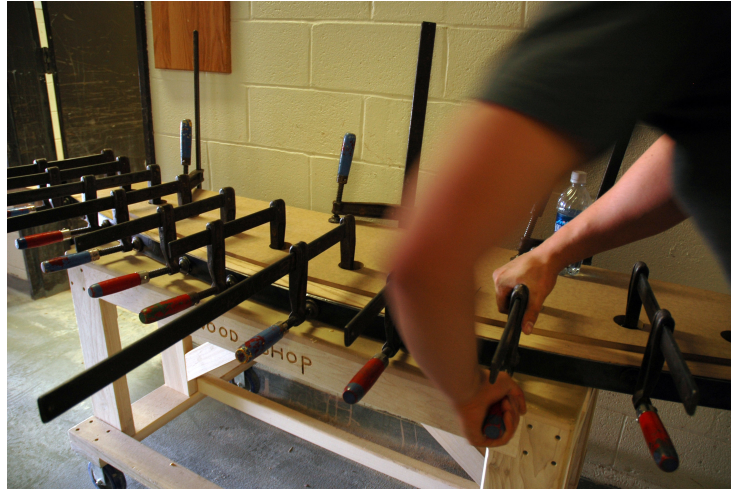


fig. 10: clamping the steamed wood and steel strap to the form to achieve the curved side rails

The stationary axle was housed inside a pair of massive stabilizers, which connected the axle and wheels to the bed of the cart. Therefore, the wheels would spin around the axle, as opposed to the axle spinning inside the stabilizers. Only the ends of the axle were turned on the lathe, leaving a shoulder for the hub to butt up against, for added stability. The square mid-section of the axle added structural integrity to its length, but for aesthetic purposes, I cut an octagonal cross section into it.

The stabilizers, cut out of 2-inch thick slabs, were laminated in sections, so as to leave a precisely measured square void in the center of each one, to accommodate the exact dimensions of the midsection of the axle. Two more notches cut into the top edge of the stabilizers, also fit snugly around the two middle cross members of the cart frame. They not only became the load-bearing elements of the cart, but also added significant strength to the whole, in the triangulation of the joints.

The next major undertaking was the design and integration of the shaft, which is the long beam extending out the front of the cart. I selected and milled a 10-foot long board, 2-inches thick, with a long sweeping curve running in the grain. This would follow

the curve of the tapering shaft nicely, and minimize grain run-out. For added strength, I made a plan to create somewhat of an A-frame, for the single central shaft of this cart.

The length of the shaft needed to extend through the body of the cart, to provide enough leverage for pulling and turning, so I decided to join the two ends of the A-frame to the stationary axle and mid-cross member, which were already very sturdy, and this would add even more bulk and strength to the whole structure.

During the glue up, I included hidden dowel joints through the material, for added integrity. Stylizing the cart in my own way, I applied various hand-shaping techniques to add subtle details around these parts, including copious chamfered edges around the axle and its housing components, and the gently sloping faceted top edge of the shaft. To complete the work on the frame, I added floorboards to the bed, which flexed and locked into place, with rabbets and registration pins within the frame.

Finally, the cart was finished, so I slipped the wheels onto the axle, and saw it standing for the first time! The final step was to create the hubcaps and self-locking end-caps, which would stabilize the side-to-side rocking of the wheels, and lock the wheels to the axle. These parts were all turned on the lathe, and when placed on the axle, locked together with a tapered thru-tenon, or wedge, which penetrated through the end-caps and axle.

The making of the yoke and bell were much less complicated, but still required the same amount of care to create, so that they upheld their own presence next to the magnificence of the cart. I also added square holes as decorative elements, but also to be suggestive of aspects for further utility, like lashing or bolting. Also, all the edges on the entire form were chamfered, to match the aesthetic of the underside of the cart. These elements, like the wheels, were crafted in unconventional ways, as far as yokes and cowbells are made, which add to the overall aesthetic and concept.

## *Achievements*

The completion of *Buffalo Cart* was an achievement I am extremely proud of. It was the well-thought out and controlled methods of my process that ensured its success. The level of difficulty and complexity I overcame, in this piece alone, has given me the confidence to confront great challenges in the future.

Aesthetically, this work was a great accomplishment, definitely inheriting the *ancient refined* qualities. Not only was the structure sound, but each and every element of its construction was considered in the appearance of the whole sculpture, resulting in a stunning showpiece. The subtle faceting, modest detailing, and controlled edge treatments were consistent throughout the cart, the yoke, and the bell, making each object unmistakable elements of a group.

The buffalo cart was a successful symbol as well. Its associations were wide and could vary from person to person, and culture to culture. There is something about a cart with big wheels that everyone can identify with. While constructing *Buffalo Cart*, many observers viewed it in interesting ways, suggesting it could be a Roman chariot, or even a rickshaw. I support the varied interpretations' of the viewers, as it gives me an opportunity to learn from others.

While under construction, there were some interesting issues of discussion, amongst my committee, concerning how to present the cart. One question was whether or not to include side rails on the cart, as shown in my model. We decided that the addition of rails would bring too many implications of the objects in the cart, and the piece would be more about the load, so I chose not to add them. Another comment suggested that maybe I could introduce something more unexpected into the cart, such as a broken axle, further suggesting advancements in technology, and having left the past behind. However, I was committed to my goal of creating a working functional cart, which at that stage, was more important to me. Besides, it was an incredible experience to see

this cart being pulled around...with people on it! The wheels squeaked, but spun smoothly and sturdily. The integrity of the joints and solid construction held up perfectly, confirming its abilities as a utilitarian object.



*Godking*



Mahogany  
18 x 15 x 25 in



## *Godking*

While progress on *Buffalo Cart* was an ongoing challenge, in terms of its structural demands and scale, I was able to work through designs for other projects at the same time. With no plan or image in my mind of what I wanted to make, I set my own parameters for my next sculpture: to create *an object that had lost its function*. Drawing on themes of time and impermanence, and looking at sculpture of ancient cultures, I developed my next piece, entitled *Godking*.

## *Sculpture*

Across cultures of the ancient world, images of ancestors, gods, pharaohs, kings, and enlightened beings have been sculpted to immortalize or embody that being, and strike faith, inspiration, fear or worship into its devotees. Carved, cast, or hand-built, these images represented someone of great significance or power. The figurative works and statuary of the ancient Greeks, Egyptians, or Mayans come to mind, and while living in South East Asia, I observed, first-hand, the remains of countless Buddha and Hindu statues, in their original architectural settings. I made frequent visits to historic ruins like Sukkhothai and Ayuthaya in Thailand, and Cambodia's temples of Angkor.

What most intrigued me about the sculptures I observed in these places, were their beautiful flaws, broken and missing parts, and scattered fragments. I could literally imagine the natural and social forces that left these grand architectural feats, and the sculptures, in their current weathered and crumbled state. There were faces without heads, heads without bodies, legs without torsos, and quite often, only a pair of feet remaining. Each fragment was a precious object with clues to the long history of events of the place.

## *Observations*

*Godking* represents a mysterious fragment of an ancient figurative sculpture. All that remains is a pair of pudgy bare-feet, standing flat on a base. The rest of the figure, above the ankles, is missing, so there is no indication of who the figure was. Sculptures like this often broke somewhere below the knees, which was the weakest point in a top-heavy stone figure. Many different forces may have caused such breakages.

Extending from beneath the base is a long tapering square member. Historically, stone statues would have been stabilized with large tenons, integral to the base, which would fit into a secondary base. Here, it props up the object at an odd angle, and raises questions of what it is and what its purpose is. The base has a chamfer on the underside, further evidence that suggests it fit snugly into some larger base. However, existing only as a broken fragment of a larger component, this object has, in effect, lost its function.

The feet are unadorned and unassuming, in a frontal position, with the left foot slightly in front of the right. The toes are almost all the same length, sculpted with clean hard edges, and they curl distinctly at the tips. These details must have been significant to those who created and worshiped this figure, but where is the rest of it? Who is it, and who made it? The rims of the ankles, where the breaks occurred, are clean and softly faceted, almost like glass - a striking contrast to the interior surfaces of the feet, slightly textured.

Interestingly, the sculpture is hollow! The hollowness extends deep into the base so the viewer sees nothing but blackness inside. There is complete emptiness, and silence. The empty space suggests some intentional use of the interior, like containment or concealment, or it could be viewed as a reference to hollow cast or hand-built sculpture.

## *Perishable*

*Godking* is an image of an ancient figurative sculpture, which in itself, speaks of a lost art form. It represents something which would have originally been carved out of solid stone, however, *Godking* is hollow-constructed and carved in wood, a material that deteriorates and disappears quickly, contrasting greatly to the permanence of stone. In fact, at all the ancient sites I visited, anything made of wood, including wooden houses or wooden architectural elements, had all rotted away hundreds of years ago, so all that remained were the stone and brick structures. Furthermore, a hollow stone is unprecedented. Only in monumental works were there hollow stone sculptures, such as the Greek Colossus, which was built from brick-layered blocks of marble, and then carved. Despite its monumentality, or suggestion thereof, *Godking* is perishable and transient.

## *Destruction of Culture*

Although very tranquil, this image is a strong reference to war and destruction. It implies the end of an era - a symbol destroyed by those in opposition to the original figure or the message it stood for. It is a remnant of war as much as it is a remnant of civilization. War brings about a destruction of culture, physically and intellectually, affecting the architecture, art, environment, and charisma of the cultures involved. *Godking* reminds us of those acts of cultural violence and vandalism throughout history. While visiting Angkor Wat in Cambodia, for example, I learned about and saw first-hand, the destruction caused by the Khmer Rouge to the people, the history, its precious artifacts, and country as a whole. The Taliban bombing of the Bamiyan Buddha sculptures in Afghanistan, as well as the devastation of 9-11, and even the damage to the statue of Saddam Hussein upon his capture in 2003, are other examples of cultural vandalism.

## *Black Market*

New York City's Metropolitan Museum of Art has been a source of wonder and inspiration for me since I was young. One issue we don't think of too often, when we view artifacts in museums, is how the objects were acquired in the first place. Were all the objects bought or obtained legally? Was there bloodshed? Where are all the other artifacts that are not in the collections of museums? *Godking* makes a reference to the global Black Market distribution of ancient and cultural artifacts. While the historical value of such objects is priceless, their monetary value has ensured an underground market driven by crime. In many cases, as in the looting of the temples of Angkor, rare or highly sought after sculptures were stolen in times of abandonment, war, and ignorance. The ancient tombs of Egypt, as well, are infamous for having been looted of their artifacts and treasures. It is a subject of deep inquiry, and controversy, but is an issue that I ponder.

## *Devoted*

The term "god-king", after which this sculpture was named, was introduced to me while reading about an ancient Khmer ruler in Cambodia. In 'The Great Warming', by Brian Fagan, the author wrote, "Jayavarman consolidated his kingdom by proclaiming himself a *god-king*; his subjects worshipped him as a deity. All the resources of an increasingly centralized government were devoted to the cult of the Divine Monarch. Everyone, whether general, noble, priest, or commoner, was expected to subordinate his or her ambitions to the need to perpetuate the existence of the king on earth and his identity with the god in this life and next." (207) It was this incredible audacity and devotion that dominated the region of South East Asia for more than 600 years, and erected hundreds of elaborately carved temples and monuments in the name of the god-king.

## *Climate*

Surprisingly, the Khmer civilization came to an abrupt and mysterious end. It is fascinating how Fagan relates this downfall to climate change, another major issue still affecting the world today. “The kingdom was balanced on a carefully engineered system fed by the annual monsoon rains.” (209) He describes a society that reached a critical mass, too vulnerable to drought, stating, “The Khmer had created a fragile, totally artificial environment that was ultimately as unsustainable as it was magnificent.” (211) Their glorious cities were abandoned, and swallowed by the jungle, and the god-king lived on only in stone representations.

## *Technical Notes*

To begin my process for this *Godking*, I sculpted a 1/8-scale model in oil clay, to work out the forms, proportions and details in the piece (fig. 11). There was to be a good deal of carving in this work, as well as some interesting engineering considerations, to achieve the final results. Following the proportions in the model, I made full-scale drawings of the front, side, and top of the piece, which I would transfer to the wood.



fig. 11: Clay model of *Godking*

I envisioned another monochromatic piece as my goal, so I chose to use mahogany for its consistent grain pattern and even tones. I also love mahogany for its carving qualities. I selected 2-inch thick stock and laminated the different parts of the sculpture in four sections: the feet, the upper base, the lower base, and the tenon.

There was a process of construction here, which was quite interesting in comparison to the way ancient figure sculptures typically would have been made. My design and construction decisions were based much on the use of wood, as opposed to stone, as well as keeping a consistent grain appearance. Each of the four parts were worked separately, and then joined. The feet were hollowed out and shaped by mallet and chisel. The two halves of the base were milled on the Bridgeport Milling Machine (fig. 12), to lower the level of the top of the base, and also to hollow out both halves of the inside of the base. The tenon, laminated out of short grain blocks, to match the grain of the feet and base, required steel rod reinforcements inserted through its top.

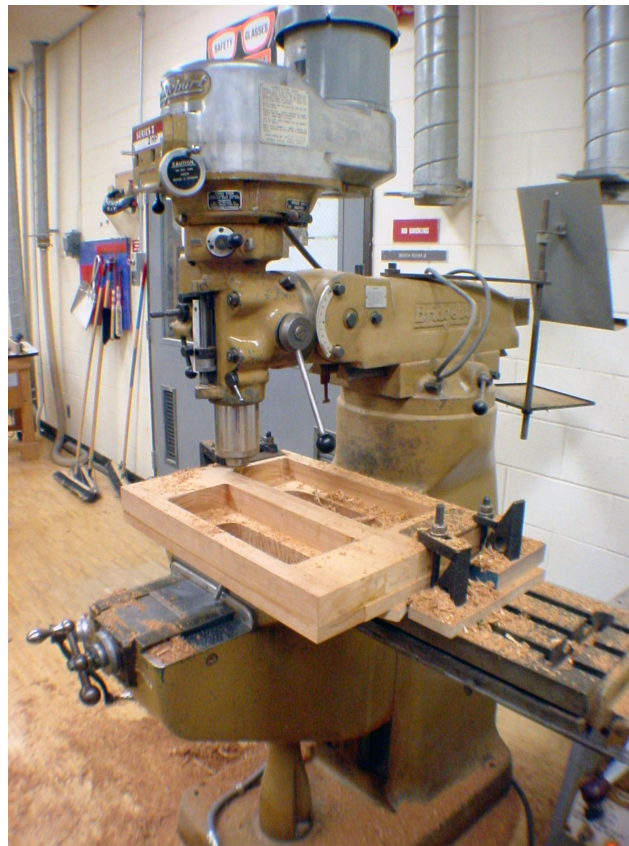


fig. 14: Hollowing out the base on the Bridgeport Milling Machine

My aim was to make all the pieces appear as one solid integral whole, without seams, which is why the level of the top of the base was milled down slightly around the footprint, raising the footprint, effectively (fig. 13). To create a clean contact point between the feet and the base, I used a small flush cutting Japanese saw blade, on the surface of the base, and then carefully chiseled away the waste off the feet. Slight undercuts around the edges of the feet and deeper spaces under the toes, made the transition convincing.



fig. 13: Footprint milled into the top of the base

I was a bit unsure about how to address the broken surface around the ankles. I did not like the idea of creating a faux-break, but I also could not “break” the wood in a way that I could control and refine my results. However, the “break” was a necessary part of the image, as the whole concept was about the object being broken. So I decided the best way was to create a surface that attracted as little attention to itself as possible. I achieved this with a very wide-sweep gouge, by cutting large and very low-angled facets that minimized busy textures and reflections.

All the parts were glued up in sections as well, within a framework of caul blocks (fig. 14 & 15). After it set, I lightly planed the glue seam on the side and end-grain faces of



the base, and sanded the entire surface of the piece one final time. I finished the piece with several penetrating coats of Danish Oil.



fig. 14: Separate components of *Godking* ready to be glued



fig. 15: Final glue-up within framework of caul blocks



## *Achievements*

I was very pleased with the results of *Godking*. It could have been carved out of a solid block of wood, however, I would not have achieved the same results. For a work of non-functional sculpture, there was a great deal of engineering involved in it's making, which enriched the piece in every way. In other words, its hollow design and well-considered construction added alluring visual details, as well as significant conceptual references, heightening the experience for the viewer. The finely worked mahogany was successful in taking away the literalness of the piece actually representing an ancient and broken object; *ancient refined* describes the way the surfaces were worked. These aspects of the process were extremely intriguing for me, as the maker.

There was talk amongst my committee, during and after the creation of this piece, about the inclusion of the secondary base, which would have housed the tenon and base of *Godking*. We spoke about the secondary base being broken as well, explaining why the figure had fallen out and broken. In hindsight, I see how this would have been an interesting element in the sculpture, adding to the story and understanding of the objects, yet not giving away the story. However, we did determine as a group that it was not a necessary factor.

*Ice man*



Basswood  
66 x 18 x 11 in

## *Iceman*

Thoughts about my next sculpture began after a conversation with studio mates about climate change and global warming. I contemplated how these issues related to the themes of time and culture, and began thinking of the possibilities of future archeological findings, as a result of warming temperatures and melting ice. I came up with *Iceman*, which focused on the human remains, this time, as opposed to utilitarian or functional objects, from past societies. I remembered observing an ancient burial site in Sri Satchanalai, Northern Thailand, and while developing this piece, I recalled the presentation of this excavation: each skeleton emerged from an individual platform of solid earth.

## *Preserved*

*Iceman* is the image of an ancient corpse, which has been preserved in ice for thousands of years. The ice has begun to melt, exposing the irregularly textured surface of an emaciated frozen figure. The figure is undoubtedly from an ancient time, with a strong sense of antiquity and mortality, yet it is clearly human, and almost peacefully intact. It is reminiscent of well-known “Oetzi”, the 5000 year-old preserved mummy found in the Italian Alps in 1991. His hair, skin, clothing, tools, food, medicine, and other personal belongings were all preserved in the ice that trapped him, revealing a window into his past, and telling us who he was, where he was going, and what he ate. It is exciting that we can connect to history in this way.

## *Cultureless*

This sculpture, however, does not give us any information about the frozen corpse, and there is no narrative. The figure has no sexual, cultural, or personal identity, and there is nothing visible that places it in any group, geographical location or time period. Clothing cannot be distinguished from skin, and skin cannot be distinguished from bone. It is simply human, and that is how we can identify with this figure. There are no objects in the image to add to the story, either. So who is this and how did they become frozen in the ice? This is for viewers to imagine and decide for themselves.

## *Global Warming*

My intentions behind creating *Iceman* are more concerned with the question of what has caused the ice to melt, and this is a deliberate reference to climate change and global warming, which need no definition or introduction. These are definitely hot topics around the world today, amongst scientific communities, as well as mainstream culture. Australian writer, scientist, and explorer, Tim Flannery, gives a fascinating account of the history of climate change in his book, 'The Weather Makers'. As the title suggests, the author describes in great detail, all of the factors, natural and human-induced, that affected the global climate over millions of years, up till today. Not only has the presence of growing and developing human societies accelerated climate change, but it is interesting how the global climate has affected the development of cultures around the world, as well. In reference to the "warm period" of the last 15,000 years or so, since the last ice age, Brian Fagan suggests that climate change is the reason civilization was able to take hold in the first place. In 'The Long Summer', he writes, "To ignore climate is to neglect one of the dynamic backdrops of the human experience (xiv).

I do not intend to argue any moral standpoint, although I support awareness of these issues. I believe we are currently living in a time of a great shift in our technologies, production methods, and energy consumption, in which we will attempt to adapt to the trends in changing climatic conditions. *Iceman* invites the viewer to investigate these concepts further.

## *Frontier*

*Iceman* speaks of geological time, and refers to ice ages, which have occurred frequently and naturally on the planet. Earlier generations of man have, in fact, lived through such climatic shifts, and adapted to changing conditions. I am interested in the potential discoveries of ancient cultures that could be made if glaciers and ice caps actually continue to recede. As the planet warms, and the ice melts, I believe more of the Earth's history will be revealed, including remnants of unknown settlements, artifacts, and plant and animal remains, that have been hidden and preserved for thousands of years. I can imagine the discovery of an ancient man who walked Antarctica when its climate was habitable. *Iceman* suggests that a new frontier of archeology is to be found in the ice!

## *Technical Notes*

The making of *Iceman* occurred rather quickly and with great enjoyment. The design required several solid wood planks to create the 66 x 18 x 11 inch block of ice, and the exposed figure was to be laminated, carved and then applied to the block. I chose basswood for its light even tone, nice carving qualities, low cost, and availability in greater thicknesses.

The block of ice was made with massive 3-inch thick boards, edge-joined on only long grain surfaces to create the long hollow box, with all the grain oriented lengthwise. The light and creamy tones of the top and side surfaces contrasted subtly to the slightly darker tones and textures of the end-grain surfaces, which created a pleasing element in the block. During the model-making stage, I decided the piece would be more interesting if the block of ice appeared to be melting and sinking into the floor. I achieved this in the basswood block by cutting a long angle lengthwise along one side, and widthwise along another side, making one corner of the box lower than the rest. This completed the melting block of ice.

Referring back to my clay model, I made full-scale drawings, outlining the top and side view of the emerging figure. Using these drawings as guides, I determined the actual dimensions of the boards I would need to prepare, and how to orient them for lamination of the main portion of the figure (the head, torso, and right leg), and the additional buried body parts (the hand, the elbow, the knee, and the feet). Each part was band-sawed and secured to its own MDF work surface, with double-sided tape. These sacrificial work surfaces would prevent any damage to my workbench while carving so close to the defining edge of the piece (fig. 16).



fig. 16: Carving the rib cage and head on a sacrificial work surface

While sculpting the figure and its half-exposed parts, I utilized a life-size skeleton model, as well as my own body, for reference. I could imagine how skin might have almost shrink-wrapped around a frozen corpse. The skeleton model was a great help in positioning bony landmarks around the body. All the carving work was done with a freshly sharpened 1-inch wide, deep-sweeping gouge, and the basswood carved easily

and cleanly, particularly across the end-grain. Through the process of carving, I discovered that the gouge-texture perfectly portrayed the visceral qualities of an ancient and decaying body, without looking faux-old. I left long, sweeping marks across the abdomen, chest, and groin, and left smaller detailed facets on bony areas like the skull, knees, and hip (greater trochanter and iliac crest) (fig. 17 & 18). Furthermore, by creating this texture, the surface retained qualities of a controlled and refined process that adhered to my *ancient refined* aesthetic. I shaped the other parts in the same way, and removed them from their sacrificial work surfaces.



fig. 17 & 18: Details of the gouge texture

I brought the parts back to the jointer, to true up their bottom surfaces, and took a light pass, removing only 1/32-inch, and created a 1/16-inch flat band around the entire bottom edge with a fine rasp. While gluing the figure and its parts to the block, each part was located and locked into place with registration pins, or dowels. This method assured a clean and controlled glue-up. I was careful to wipe up any excess glue with a wet cloth.

There was some question as to what type of finish to use for the *Iceman* sculpture. I would normally favor an oil finish, but in this case, any oil finish would make the basswood yellow. And, since the gouge-texture revealed so much end-grain, an oil finish would also make the surface look very blotchy, and therefore, hard to read the

form. I considered ebonizing or bleaching the piece, and giving it a glossy, icy, surface, but decided against an artificial coloring or faux-effect. I needed a clear finish that wouldn't darken the wood or emphasize the color contrast of the end-grain. My solution was Minwax Polyacrylic finish, rubbed on, then rubbed off and buffed. This slightly penetrating wax sealed the wood with a matte surface, and preserved the creamy tones of the basswood, leaving a clear strong form.

## *Achievements*

The great achievements in this piece were in its concept and its integration into the theme of this thesis. *Iceman*, a representation of human remains, was a successful departure from the previous three works mentioned earlier, all of them manmade elements of ancient history. As the works developed one by one, and the concept of the thesis evolved, I became less and less concerned with the utilitarian aspects of the work, and more concerned with the conceptual implications of the objects and symbols I was using.

The creation of *Iceman* was unproblematic, and the results were satisfying. In discussing with my committee, we all agreed upon the decision to present the piece on the floor, as it put more distance between the work and the viewer, making the figure look smaller and more fragile. The figure's scale and relationship to the block also worked well, as if it were a section cut out of the ice. The simplicity and shape of the melting block, perfect but imperfect, contrasted beautifully with the texture of the corpse. Furthermore, the corpse, clearly giving a sense of mortality and death, was not gruesome or even unpleasant in anyway, making this piece accessible to all. It is not a representation of any one culture and it is not a narrative of anyone's specific history; *Iceman* represents everyone.



*Three Whale Vertebrae*



Walnut

3 pc, each 60 x 38 x 13.5 in

## *Three Whale Vertebrae*

Up to this point, 'RELICS' consisted of a wide range of objects, and brought up a variety of topics and issues. As I mentioned earlier, my approach had become more to do with the imagery and content relevant to the theme of the thesis, and was no longer limited by the inclusion of utility and function. For my final piece, I was careful to avoid redundancy, and attempted to bring forth one more fitting example of an entirely different object and subject. I came up with *Three Whale Vertebrae*, drawing from personal memories of encounters with whales and whalebones.

## *Encounter With Giants*

Why are whales so captivating? When we see them we are awestruck by their size and grace, and when they move, it is like poetry. These ancient creatures seem wise and gentle, and touch the hearts of the people who encounter them. They mysteriously emerge from the depths and disappear into the vastness of the sea, and if we are lucky to catch a glimpse, it is unforgettable. I have witnessed several whale sightings, all of them along the east coast of Australia. I recall following two southern right whales, from a cliff top vantage point in Noosa National Park, Queensland. Even from afar, I could sense their great size and majesty, as they rolled and surfaced beneath me. This close connection to nature has been part of the magic I identify with, in Australia.

## *Observations*

Sprawled out across the open floor lay three large forms, almost identical. At first, it is questionable what the objects are, somehow resembling propellers or machine parts.

However, further investigation makes it clear that these are biological and skeletal, in nature, and in fact, are life-size representations of three huge whale vertebrae. Their scale is impressive, and gives the viewer a sense of how large these animals really are.

Their surfaces are slightly textured yet burnished, their edges are crisp, and their color is a variation of deep browns. The three vertebrae are unaccompanied by any other objects or, interestingly, other whale parts. Again, there is no narrative or indication of what circumstances left them in this way, but there are certainly several concepts we can explore that are associated with this image. Approaching *Three Whale Vertebrae*, it is as if the viewer were approaching the remains of a beached or hunted whale. Images of remote, wild, ocean beaches come to mind, as well as early whaling stations, littered with carcasses and whalebones.

### *Ecofact*

In another departure from material culture and manmade artifacts, these three vertebrae are actually considered *ecofacts*. Described to me by thesis committee member Bill Middleton, an ecofact is a natural object utilized by humans. Traditional whaling practices have been around for thousands of years, and this brings to mind the indigenous utilization of whalebones and other whale parts. Typical dwellings of Asiatic Eskimo tribes, like those of the Inuit, were framed with whale ribs and jawbones, and packed with earth (Rudenko 109-111). I encourage viewers to imagine the cultural adaptation to an Arctic seaside dwelling lifestyle, and picture how these gigantic vertebrae could have been used in those circumstances. In consideration of utility in this piece, these are non-functional objects that were appropriated and given a function.

## *Conflict*

*Three Whale Vertebrae* also touches on the controversial subject of whaling and the uninhibited slaughtering of some of the earth's most magnificent creatures. The history of the whaling industry is a startling one that has seen populations of whales drop to near-extinction. Modern whaling practices of the late 19<sup>th</sup> Century, saw the invention of the exploding harpoon and newer, larger, and faster vessels, which escalated the problem (Simmonds 121). These anthropocentric tendencies are symbolic of the ignorance that has degraded and devastated much of the natural world.

In his book, 'The Third Chimpanzee: The Evolution and Future of the Human Animal', Jared Diamond discusses the self-destructive trends of humans that destroy the environment and spur mass extinctions of species. He states that overhunting is the most detrimental (358). This predicament finally touched the conscience of the world in the 1970's, which sparked an international ban on commercial whaling in 1986. With an understanding that ethical values differ immensely between cultures, it is still disheartening that some countries, like Japan, Norway and Iceland, still hunt and trade whale parts for various purposes.

## *Tasmania*

While living in Tasmania, Australia, I learned a great deal about the whaling history there. Within my first few days of moving to Hobart, a sperm whale visited the Derwent River Estuary, and I was there to observe the sight! Locals told me that when Hobart was first founded, you could have walked across the Derwent upon the backs of sperm whales - there were so many. In 'The Fatal Shore: The Epic of Australia's Founding', the author explains how the presence of great numbers of whales were a main consideration in the decision to settle Australia's second colony in Tasmania, on the

Derwent River (Hughes 121). “The Fisheries, as sealing and whaling were collectively known, were of an abundance hardly imaginable today. The Southern Oceans were a vast undisturbed sanctuary for the black whale, the sperm whale, and the fur seals.” (Hughes 331) Today, whales are protected in Australian waters, as several species still migrate there from Antarctica each year, to breed and calve.

## *Global Warming*

Mentioned above, *Three Whale Vertebrae* is suggestive of the death or extinction of whales. In a fascinating way, this image and concept can be linked to global warming, as well. In ‘The Weather Makers’, Tim Flannery talks in depth about the great changes in climate that are presently occurring in Antarctica, from which there is a ripple-effect of problems within the ecosystem. He talks about the decline in the base of the food chain – microscopic plankton – which cold-water krill thrive on. Many penguin, seal, and whale species are dependent upon a krill diet. Referring to studies of the British Antarctic Survey, Flannery writes, “The reduction in krill numbers coincided so closely with the reduction of sea ice over time as to leave little doubt that climate change is a profound threat to the world’s most productive ocean, and to the largest creatures that exist and which feed there.” (97)

## *Technical Notes*

The creation of *Three Whale Vertebrae* was a straightforward but time consuming process. Having made full-scale drawings from a clay model (fig. 19 & 20), I was able to calculate exactly how much wood I needed for each vertebra, and made an accurate cut-list, which would drastically minimize the amount of waste, and excess material I would have to remove. I envisioned a natural finish on a dark wood for these aged

skeletal forms, so I chose walnut, as opposed to bleaching a lighter-toned wood to mimic the whiteness of bone. I figured the earthiness of dark walnut better served my “*ancient refined*” concept, drawing on the tonal qualities of naturally decaying organic matter, to speak of history and aging.

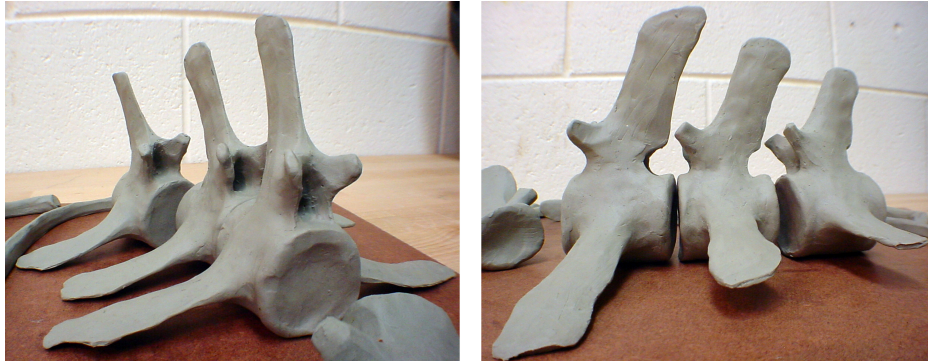


fig. 19 & 20: Clay model of Three Whale Vertebrae

It required a great deal of material to make all three vertebrae, and it was important for each of them to share the same appearance and surface qualities. The first and greatest challenge was to find enough walnut of consistent color and grain pattern, (which varies tremendously in this species). Another characteristic of walnut, which did not necessarily work in my favor, is the prevalent sapwood, which shows as highly contrasting light brown or yellow bands. Those issues aside, but acknowledged, I acquired all the wood I needed at once, from a single batch of sawn logs, selected for uniformity. Because I had all the material to create all three vertebrae simultaneously, I did just that, which allowed for a methodical and efficient process.

I spent a great deal of time going through my stock and referring to my full-scale drawings, marking out the lengths, orienting the grain pattern for each board and layer, and separating them into three piles, one for each vertebrae. Each vertebrae required extensive laminations to create the mass and extreme proportions of the form. So there was a long series of consecutive glue-ups before I could begin shaping them. An interesting part of this process was the addition of floating mortise and tenon joints, between the vertebral body and the spinous process (the long vertical portion of the

vertebrae. This was necessary to provide enough long-grain glue surface between the two parts.

After gluing, the joints were clean and tight, and the three vertebrae were whole and solid, and ready to be shaped. Reductive carving, with a mallet and chisel, is my preferred method of shaping, and these three massive forms proved to be a lot of enjoyable physical work. I carved out the vertebral canal, which is the large hole below the spinous process, and sculpted the mamillary and transverse processes, which are the small protuberances on each side of the vertebral canal, and the long horizontal “wings”, respectively. I made use of a Kutzall grinding wheel on a 4-inch angle grinder, to remove much of the hard end-grain within the mass of vertebral body, and did the more refined shaping with a large rasp. I finished off the whole surface by hand with a fine rasp, leaving a faint texture in the wood, and finally, applied several coats of Danish oil.

## *Achievements*

*Three Whale Vertebrae* was a great accomplishment in many ways. Technically, it went very smoothly, and after the lamination process was complete, this piece was especially enjoyable to create. I am an avid carver, and once the parts were all joined and glued, I spent hours with the three forms, shaping them with a mallet and gouge - my favorite tools. I love the physical aspects of hand-carving large pieces, as well as the more refined discipline of modeling form. Creating an accurate clay model, and translating it to the full-scale drawings, was crucial in realizing the forms in wood. The lamination procedure took patience and determination, but produced a solid piece to carve. The mortise and tenon joinery was an interesting element in this piece, making the irregular proportions structurally sound.

Again, one of the greatest successes here was bringing another relevant, yet unique, object and subject to the group. The whale vertebrae were a perfect choice. I was very

pleased to have found a way to share my own love of whales, while providing a striking image along with stirring discussion topics, still related to time and culture. Conceptually loaded, *Three Whale Vertebrae* is a portrayal of many serious issues, presented in a way that was not too graphic or imposing in a negative way.

While developing this sculpture, there were some interesting questions and potential directions for the piece to take. The clay model was originally a larger group of objects, which included several ribs, flipper bones, and a scapula. As I began the piece, I knew it would be a great undertaking to create all the bones in the time allotted. I chose to start with the vertebrae, as they were the most intriguing forms. Ultimately, I decided that I would not include the other bones, as the piece might become too literal, and cliché – an arbitrary pile of bones. *Three Whale Vertebrae* leaves room for question, as to what the objects even are. There was also some consideration about adding a harpoon or some whaling tools, but that idea died quickly, as it was definitely too literal, cliché, and too opinionated. My thoughts on the subject matter were shared to begin a dialogue, but the image was not intended to encourage a point of view.

Completing my final piece was an achievement in itself. I should mention that the completion of *Three Whale Vertebrae* coincided with the final stages of the conclusion of *Buffalo Cart*, so I was especially excited. Each of my five major works were finished, and I was finally ready to set up the work in the gallery for my Thesis Exhibition!



## *Conclusion*

In this final section, I will describe the gallery exhibition of the works, and conclude with some final thoughts on my results with regards to the ideas discussed within this thesis.

## *The Exhibition*

The exhibition for 'RELICS', took place in a large converted warehouse space, on Canal St. in downtown Rochester. It included two enormous rooms, broken up by huge 3-foot columns throughout the space, and a few wall partitions. I shared the space and opening night reception with three other MFA candidates and their work - Jesse Bickel and her 'IN DREAMS', Jesse Walp's 'SUBURBAN DIVIDE', and the playful furniture of Sun Hee Oh. Each of us had utilized wood in distinct ways to convey our individual thesis concepts, and it was a clean and professional presentation on the part of all four of us involved. We divided the space equally, so that we each had a large area of our own, uninterrupted by each other's work. We cleaned up the floors and the walls, and each set up our own track lighting within the exposed pipes running through the ceilings. With grey floors and white brick walls, and all of the works individually lit from above, it was a perfectly stark space in which the viewers could experience the essence of the works with no other distractions. We called the space *Canal Street Gallery*.

*Buffalo Cart* was the entrance piece to the entire gallery, occupying a partitioned off room near the doorway. My other four pieces – *Vessels & Chair*, *Godking*, *Iceman*, and *Three Whale Vertebrae* - were set up in the back room, in a space framed by columns and partitions. There was ample space to completely walk around each of the works, and their lighting was positioned so each piece was highlighted and separated visually by darkness. The natural wood tones glowed in the grey-scale environment, enhancing the experience for viewers.

Our opening night was on Saturday, April 19<sup>th</sup>, 2008, and there was a huge turnout of people, family and friends, students and teachers, and various fixtures from the local community interested in the arts. There was a variety of delectable edibles, and sounds filled the air, ranging from orchestral themes to 1970's soul to bird sounds. There was a great flow of lingering people from room to room, as the evening went on. For me personally, it was an emotional night, to share this accomplishment with my family.



Exhibition view of 'RELICS'

## *The Work*

Each sculpture included in this thesis was an individual achievement, as described in each write-up. As a group, 'RELICS' delivered a compelling and cohesive body of work, encompassing an array of engaging imagery. It was a welcome and successful departure, for me, from the more abstract minimalist work I was doing prior to the creation of *Vessels & Chair*. The clean, crisp, and controlled craftsmanship I developed in my previous work, however, stuck with me, and translated very nicely into my current representational approach. In fact, it all integrated beautifully into the development and application of the *ancient refined* concept and aesthetic, which was a major element in this work. It was most interesting how the making of a furniture piece led to a transition into representational sculpture and the creation of 'RELICS'.

I intend to continue this exploration of representational sculpture, in future work. I will pursue the use of universal symbols and imagery, no longer limited by objects from the ancient world. I believe I can make my work even more engaging, and enigmatic, by combining more unrelated imagery, in interesting and unexpected ways. I foresee a lot of freedom and potential along this path.

## *Skills*

The structured curriculum of RIT's Graduate Wood program proved to be advantageous in acquiring the skills to achieve the level of difficulty and scope of 'RELICS'. The technical expertise and well maintained facilities within the department provided the grounds to excel, technically, in this material; I have learned a great deal from this experience, and move forward with great confidence in my work. Not only have I developed complete competency in the tools and methods of manipulating wood, but also I am able to teach and speak of these aspects, with great experience and

knowledge. The ways in which I developed my design process, problem solving skills, and conceptual approach, will stay with me throughout my career, and may be applied to any project, in any material.

The making of 'RELICS' provided a time for me to become more familiar and versatile with wood as a sculptural medium, covering a variety of concepts. At the same time, I have come to really appreciate and know wood as a craftsman. I developed a greater love for the material, and sensitivity while working it, understanding that careful craftsmanship raises the status and value of a work of art. I will continue to persist in developing my practice of merging sculpture with fine craft.

## *Wood*

During the creation of 'RELICS', my committee posed the question, "Why wood?" Could the sculptures speak the same message if they were made in any other material? Would another material be more appropriate? How did wood strengthen the concept of each piece? These were all valid questions, and I recognized that the material choice did add content, however, I decided that wood was not necessarily driving the content of this work. Instead, wood was the unifying element in this diverse group of objects. Wood brought the ideas to life, and this relationship, of the perishable representing the ancient, was a fascinating one.

Spanning representations of the inanimate, the organic, and the manmade, there was a clear connection of the objects through the material. The use of finely worked natural wood surfaces, and clean wooden joinery were successful in creating a consistent aesthetic language throughout all the pieces. Each sculpture was made of a single species and color of wood, bearing equal attention to hand-worked details, sculpted forms, flawless surfaces, and clean, crisp edges.

Wood enhanced the work in other ways, as well. Its appealing presence of nature, and tactility, invited and encouraged real and imagined interaction. In itself, wood is cross-cultural. Its tones are familiar and its history speaks a language of function, art, and making, in every culture around the world, which allowed great accessibility to these sculptures.

### *Final Thoughts*

I look upon the completion of 'RELICS' with a tremendous sense of achievement and pride. Technically, aesthetically, and conceptually, this body of work succeeded in bringing through my best abilities and efforts. I demonstrated control and knowledge of the material, formation of original ideas, as well as intellectual development and conceptual depth – aspects of my artistic practice that I will continue to build on and carry forth into my future work.

Through this exploration, I have come to better understand how I can express my deepest passions and concerns through making art. I intend to continue living and travelling abroad, engaging with cultures and the natural environment in ways that teach me about the world, and inspire my creative work. I strive for a balanced awareness of things, and an open-minded perspective, as I examine and define my own cultural and personal identity.

With regards to some of the weighty issues discussed in this paper, I suggest that there is something of significance to be gained from observing the choices, and consequences, of those that lived before us. Everything is impermanent. I encourage people to become aware of global issues, and look at our current patterns of living, so that we may embrace positive change to move into the future.

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## *Additional Images*



*Vessels & Chair*



## *Buffalo Cart*







*Godking*





*Ice man*







*Three Whale Vertebrae*



