MAXILLA & MANDIBLE, LTD.
451-5 COLUMBUS AVENUE
NEW YORK, NY 10024
(212) 724-6173 Fax 212 721 1073

FAX

March 22, 1990

Mr. James Jeffries
Ralph Applebaum Associates Inc.
133 Spring Street
New York, NY 10012
212-334 8200
Fax 212 334 6214

Dear Chip,

It was a good to see you again, and we are most excited with the prospect of helping you with the most spectacular dinosaur exhibit ever ! As per your request , we have formulated a cost estimate based on the needed degree of accuracy and workability of the skeletons for repositioning. Alan Weinstein has already allocated the needed bone elements for the scaled modeles approximately the size of your rendering . Fortunately, this size allows us to create a much more detailed and anatomically accurate representation of these fossils. The finished models can be used together in the perment exhibit as a caption.

All three models to be constructed to meet the following specifications:

1. detail anatomical accuracy -enough to impress a Vertabrate Paleontologist
2. moveable parts - neck , tails etc.
3. dyed and painted to simulate a "fossil" finish
4. to be completed within 60 days or sooner depending on changes
5. not fixed to a permanent base
6. models to be assembled from natural bone elements

Adult standing Sauropod	**$ 1,720.**	
Young Sauropod	**$ 1,490.**	
Attacking Theropod	**$ 770.**	
	$ 3,980.	**total**

Terms: 50% deposit and balance upon completion

Sincerely,

Henry Galiano
President

Ralph Appelbaum Associates Incorporated Planning and Design 133 Spring Street New York New York 10012
212 334 8200 Fax 212 334 6214 RAA/NY

TO: Dr. Lowell Dingus

FROM: Ralph Appelbaum

DATE: March 28, 1990

During a telephone conversation with Henry Galiano, the proposal from Maxilla & Mandible Inc. was amended as follows and recommended to the American Museum of Natural History for immediate processing.

AMENDMENTS:

Item 4: The models are to be completed in 30 days.

Item 5: Model tangent points are to have a vertical 2" metal 3/16" O.D. mounting rod which slips into a 2" Hx 7/32" I.D. tube affixed to a 3"x 3" square 16 GA baseplate six (6) of these are required.

See enclosed drawing.

6155

LETTER OF AGREEMENT

TO: Peter May and Andrew Leitch, Directors
Research Casting International, Ltd.
131 Bloor St., W.
The Colonnade, Suite 200
Box 222, Toronto, Ontario
Canada, M5S 1R8

FROM: Lowell Dingus, Project Director
Fossil Halls/Library Renovation
Dept. of Vertebrate Paleontology
American Museum of Natural History
Central Park West @ 79th
New York, NY 10024

DATE: March 28, 1990

This agreement is for the production of one (1) fossil mount that will include the fully mounted and painted skeletal casts of three (3) individual animals: one (1) adult *Barosaurus*, one (1) juvenile sauropod, primarily developed from specimens of *Diplodocus,* and one (1) adult *Allosaurus*.

General Terms and Conditions:

1. Unless otherwise specified, the work is to be done at the facilities of Research Casting International Ltd. (RCI) in Toronto, Ontario, Canada. While the fossil specimens belonging to the AMNH are in transit or being used to develop the mount, they will be fully covered by the insurance policy that AMNH carries with Lloyd's of London. This policy will insure the fossils against breakage, theft or loss. The value of the fossil specimens of *Barosaurus* and *Diplodocus* described below in items 3 and 4 is set at $5,000,000 US.

2. The design of the mount will be specified in drawings and/or models provided to RCI by the American Museum of Natural History (AMNH) in conjunction with the exhibition designer (Ralph Appelbaum Associates [RAA]). RCI will be consulted in the development of the design, but final authority for decisions concerning the design will belong to AMNH. John S. McIntosh will serve as the primary consultant for paleontological accuracy and will review the progress of sculpting, casting and mounting at critical

points in the project. Costs for his travel will be paid separately from the fees in this agreement by AMNH. The mount will be constructed to the specifications documented in the design drawings and/or models. Modifications in the design demanded by the actual articualtions of the bones may well be nesessary; these must be approved in writing by AMNH after consultation between J. S. McIntosh, RAA, and RCI.

3. The work involving the adult *Barosaurus* covered by this agreement:

- The mount of the adult *Barosaurus* will be based on AMNH specimen #6341.
- All the skeletal elements of AMNH 6341 will be picked up by RCI at the AMNH and transported by rented truck to the RCI facility in Toronto. The costs for materials used to pack the fossils (crates or other packing materials) will be paid for by AMNH. All other costs associated with truck rental, shipping, insurance and customs are included in the fees requested by RCI and listed below in the present agreement.
- All skeletal elements present in AMNH 6341 will be molded and casted by RCI in a combination of fibreglass-reinforced plastic and polyurethane casting foam, as well as water-extended polyester.
- Skeletal elements not present in AMNH 6341 will be sculpted molded, and casted by RCI in a combination of fibreglass-reinforced plastic and polyurethane casting foam, as well as water-extended polyester. These missing skeletal elements include all elements except cervicals 10-16, dorsals 1-9, sacrals 1-5, caudals 1-29, several ribs, 1 chevron, complete pelvis, left scapula coracoid, part of right scapula, left humerus, right hind limb, and part of pes.
- The complete skeletal cast of the adult *Barosaurus* will be mounted on an internal armature in a way that minimizes the visibility of the armature as much as possible. This mount will be constructed so that it can be assembled, disassembled, and transported in modular form.
- The completed mount will be shipped in modules to AMNH from the RCI facility. Packing, shipping, insurance and any customs fees are included in the fees listed below in the present agreement.

4. The work involving the juvenile sauropod covered by this agreement:

- The mount of the juvenile sauropod will be based on two juvenile specimens of *Diplodocus*; AMNH 7530 and a specimen in the quarry face at Dinosaur National Monument, DNM 3781.

- All the skeletal elements of AMNH 7530 will be picked up at AMNH by RCI and transported by rental truck to the RCI facilities in Toronto. The costs of materials used to pack the fossils (crates, packing materials, etc.) will be paid by AMNH. All other costs associated with truck rental, shipping, insurance and customs are included in the fees requested by RCI that are listed below in the present agreement.

- All the skeletal elements present in AMNH 7530 will be molded and casted by RCI in a combination of fibreglass-reinforced plastic and polyurethane casting foam, as well as water-extended ployester.

- All the skeletal elements present in DNM 3781 will be molded, reconstructed and cast by RCI at Dinosaur National Monument in a combination of fibreglass-reinforced plastic and polyurethane casting foam, as well as water-extended polyester. The skeletal elements present in this specimen include two (2) femora, one (1) tibia, two (2) fibulae, one (1) radius, one (1) ulna, one (1) ilium, one (1) ischium, one (1) pubis, the first metatarsal, several foot bones and claws, three (3) caudal vertebrae, and possibly one (1) dorsal vertebra. All costs for this task associated with molding, casting, travel, shipping, insurance and customs are included in the fees requested by RCI that are listed below in this agreement.

- Skeletal elements not present in AMNH 7530 or DNM 3781 will be sculpted molded, and casted by RCI in a combination of fibreglass-reinforced plastic and polyurethane casting foam, as well as water-extended polyester.. These elements include both scapulae, nine (9) dorsal vertebrae, one (1) ischium, one (1) pubis, eighty (80) caudal vertebrae and associated chevrons, all ribs, one (1) radius, one (1) ulna, both humerii, the two (2) fore feet, one (1) hind foot, one (1) partial hind foot, three (3) cervical vertebrae, and the sacrum.

- Two (2) complete casts of the juvenile sauropod skeleton will be made by RCI.

- One (1) complete skeletal cast of the juvenile sauropod will be mounted on an internal armature in a way that minimizes the visibility of the armature as much as possible. This mount will be constructed so that it can be assembled, disassembled and transported in modular form.

- The one (1) completed mount will be shipped to AMNH from the RCI facility. Packing, shipping, insurance and any customs fees are included in the fees requested by RCI that are listed in this agreement.

- The second complete skeletal cast of the juvenile sauropod skeleton will be delivered to AMNH. Packing, shipping, insurance

and customs costs are included in the fees requested by RCI that are listed in this agreement. Subsequent to delivery of the cast to AMNH, costs of shipping the specimen to Dinosaur National Monument will be paid by AMNH.

5. The work involving the adult *Allosaurus* covered by this agreement:

- AMNH will purchase one (1) #37 *Allosaurus* cast from Dinolab in Salt Lake City, Utah and will pay all costs to have it shipped to the RCI facility in Toronto.
- RCI will mount the complete #37 *Allosaurus* cast on an internal armature in a way that minimizes the visibility of the armature as much as possible. This mount will be constructed so that it can be assembled, disassembled, and transported in modular form.
- The completed skeletal mount of *Allosaurus* will shipped to AMNH from the RCI facility. Packing, shipping, insurance and any customs fees are included in the fees requested by RCI that are listed below in this agreement.

6. All mounts of the fossil skeletal casts will be produced on stable metal frame bases which will be mobile and capable of repositioning. An unconditional guarantee of one (1) year from the date of delivery applies to all casts mounted as part of this agreement by RCI.

7. After the completed skeletal mounts have been transported to AMNH, two employees of RCI will travel to AMNH for a period of up to two weeks to assist with assembly and installation of the finished mount in Roosevelt Memorial Hall. RCI will pay expenses for the two RCI employees during this trip out of fees paid by AMNH as part of this agreement. AMNH will provide a crew of up to four employees to assist with the assembly and installation of the finished mount.

8. Upon completion of the mount and final payment, AMNH will gain complete and final ownership of the mount and all its elements, including the molds for the skeletal casts. Except for the duplicate cast of the juvenile sauropod skeleton to be made for Dinosaur National Monument, no duplicate casts of the adult *Barosaurus* skeleton or the juvenile sauropod skeleton will be made or sold by RCI, or any other company or institution except AMNH, for any reason. AMNH will own exclusive license for using photos or other images of the finished mount; however, upon prior written approval

from AMNH, RCI will be allowed to use images of the mount in its corporate brochure and videotape.

9. Cost of the work covered by this agreement:

1. Adult *Barosaurus*		
Sculpting, molding, casting	47,300 CDN	
Mounting	40,000 CDN	
Subtotal	87,300 CDN	72,721 US
2. Juvenile sauropod		
Sculpting	22,500 CDN	
Molding	22,900 CDN	
Casting	18,500 CDN	
Mounting	26,300 CDN	
Subtotal	90,200 CDN	75,136 US
3. *Allosaurus*		
Mounting	20,000 CDN	
Subtotal	20,000 CDN	16,660 US
4. Shipping and travel		
Subtotal	5,700 CDN	4,748 US
5. Juvenile sauropod cast for DNM		
Subtotal	18,500 CDN	15,411 US
TOTAL	221,700 CDN	$184,675 US

(Note: CDN = .833 US; New York Times, 2/14/90)

10. Payment schedule:

1. Initial payment due upon signing of letter of agreement by representatives of RCI and AMNH [expected by April 90]
   ($73,900 CDN) $61,558 US
2. Interim payment due after AMNH and Landmarks Commission approval of work done in first phase, including completion of sculpting, molding and casting [expected by July 90]
   ($73,900 CDN) $61,558 US
3. Final payment due upon approval and completion of the finished mount [expected by Jan. 91]
   ($73,900 CDN) $61,559 US

TOTAL PAYMENTS FOR ALL WORK
($221,700 CDN) $184,675 US

11. In the event that the mount is completed and ready to be shipped to AMNH before the renovations in Roosevelt Memorial Hall are completed, RCI will store the mount at the RCI facility until it can be shipped and installed in the Roosevelt Memorial Hall. The fees for storage are included in the fees listed above in this agreement, unless shipment is delayed past February 1991. After that date, a charge of $1,000 per month CDN will be paid to RCI by AMNH for storage.

Lowell Dingus 3/28/90
Lowell Dingus Date
Project Director
Fossil Halls/Library Renovation
AMNH

P E May 30/3/90
Peter May Date
Director
RCI

4/3/90
William J. Moynihan Date
Director
AMNH

30/3/90
Andrew Leitch Date
Director
RCI

BLAKELOCK MOVING & STORAGE LTD.
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October 28, 1991

Research Casting International Ltd.
1100 Invicta Drive
Unit #8
Oakville, Ontario
L6H 2K9

Attention: Mr. Peter May

Dear Sir:

Thank you for considering our Company to handle your display for the American Museum of Natural History.

For your approval I have prepared our quotation on the basis of providing the following services:

- Dedicated crew of six professional drivers and assistants to load, travel to New York and unload display as required.
- Two air ride tractor trailers fully equipped with necessary logistics, decking and pads.
- Customs brokerage fees will be your responsibility.
- Loading: November 7, 1991
  Delivery: November 11, 1991

  Exact times to be determined.

Our Firm has previous experience in handling high value exhibits such as yours and for your information I have included a couple of references:

..../2

/Research Casting International Ltd.
Mr. Peter May

Mr. Randy Black - Toronto International Auto Show
(416) 940-2800

Mr. Fraser Clark - Spirit Bay Trading Company
(416) 236-4153

Our quotation has been designed with your special needs in mind in order to deliver the display on time and no damages.

Should you require further information, please contact me at anytime.

Yours truly,

Robert J. Clark
Vice-President

RJC/jc
Encl:

$69 + tax

Orangeburg Rte 287 - exit 12 after crossing Tapan Zee

over GW Br.

35-45 miles

on Route 303 South - 3 miles

40 minutes

L side of Rd - in b/w 2 banks

White Plains (914) 682-0050

from 95 - exit 1 or 21 to 287 West

Rte 287 W - exit 8

45 miles

make a (L) onto Bloomingdale Rd next

(R) onto Maple

2 lights

(R) onto Hale

Nov 91

Call Keating re: paperwork for

(I) 90
↓
Albany

(I) 87
↓
N.Y.

just No. of Central Pk.

~~[illegible]~~
↓
~~Mayor Dugan Exp. (95)~~
↓
~~Park Ave~~
~~Harlem River Dr.~~

WR Keating: Arthur Armstrong
(718) 481-5590

1-800-Holiday

~~Holiday~~

JFK

LaGuardia

1-800-243 8287 Orangeburg - 20

(5) 1-800-2 ~~CROWNE~~ CROWNE - White Plains - 25

NJ - ~~Fort~~ Lee

Jacaucus - 6

1-800-222-2676

*Att: Susan Ellman
212 769 5842

W. R. Keating & Company

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1991 NOV 14 AM 9:41

CUSTOMHOUSE BROKERS
INTERNATIONAL FORWARDING AGENTS
IATA APPROVED AGENTS

Date: 11/14/91

FAX TRANSMITTAL FORM

To : Mike Levans 1 416 924 5884

Location : Research Casting Int'l 849-9845

From : JIM GLEASON, JFK

Location : REPLY TO TELEPHONE: 718/481-5590; FAX: 718/528-0871

No. of Pages: 1 (Including cover sheet) Time sent:

Subject : Shipment to Amer. Mus Nat. History, NY

Comments : Further to our telephone conversation of yesterday, the dinosaur bone will not require any permits but will have to be examined by U.S. Fish and Wildlife. The bone can be entered as antique and is duty-free. The display case is dutiable at 4% as are the display panels at 3.8%. The entire shipment will be subject to U.S. Customs User-Fee at a rate of .17%.
Hope this proves helpful.

Jim

copies to:

REPLY TO FAX: 718/528-0871

1991 NOV 14 PM 2:30

/dw:061091
FORMS\WRKFAX.JG

American
Museum of
Natural
History

MUSEUM SHOP

November 22, 1991

Maxilla and Mandible, Ltd.
Attn: Henry Galiano
451-5 Colulmbus Ave.
New York, N.Y. 10024

Dear Henry,

Attached is information provided by Melissa Posen. You can use this in developing the write-ups to be included with the skeleton models.

Please call me so that we can discuss wording to be carved into the models or else noted on the wood bases. It will be satisfactory to us if the copyright symbol identifies Maxilla and Mandible, but we want some mention of the museum next to it. Some of the possibilities are:

(c) Maxilla and Mandible in cooperation with the American Museum of Natural History

(c) Maxilla and Mandible licensed by the American Museum of Natural History

(c) Maxilla and Mandible based on the mount at the American Museum of Natural History

I look forward to hearing from you about the above matters and to seeing the model of the Barosaurus.

Sincerely,

Martin

Martin Tekulsky

xc: Tom Kelly
Melissa Posen

FOR MAXILLA + MANDIBLE MODELS

Allosaurus Copy

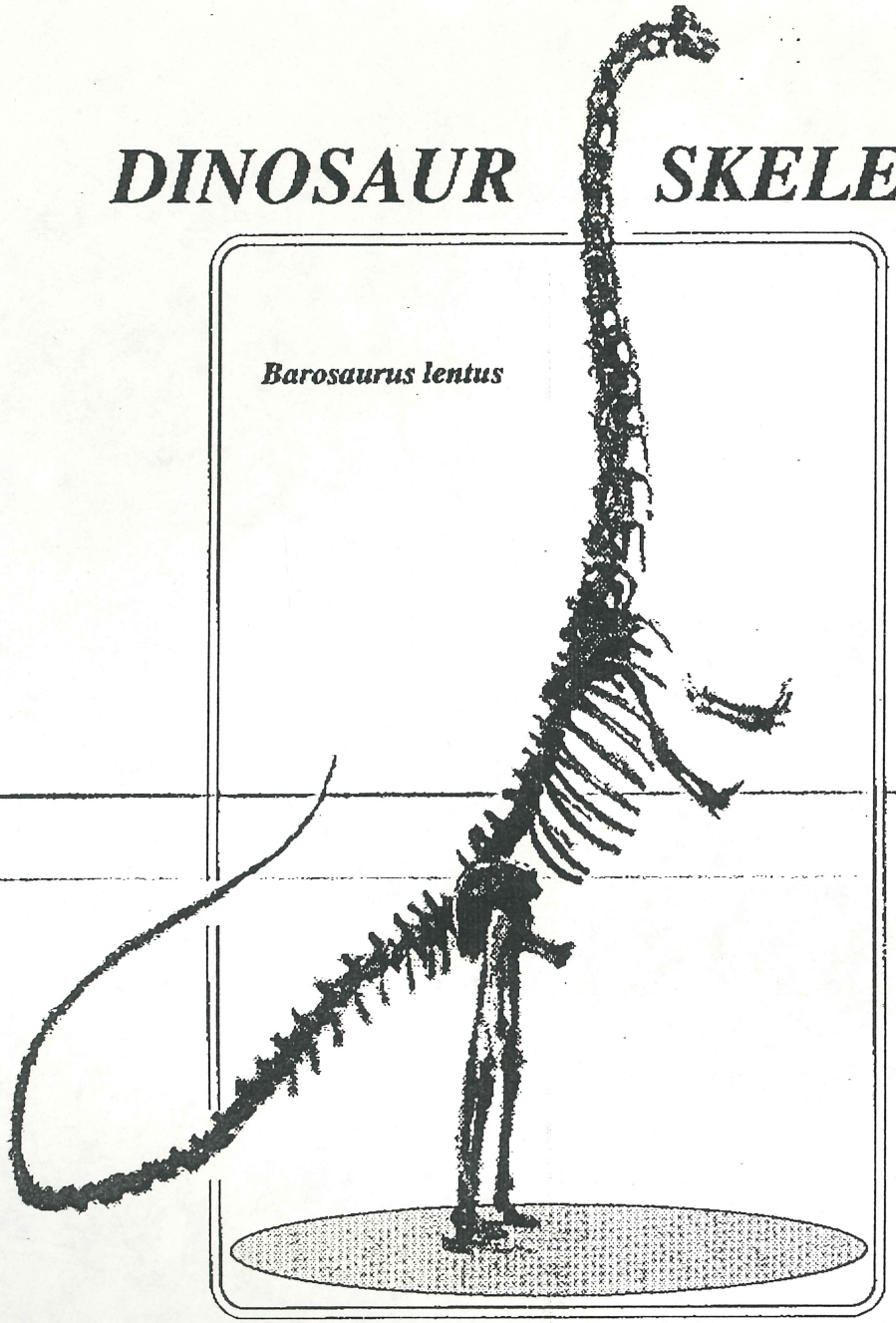
The *Allosaurus* is a fierce meat-eating predator, related to the vicious *Tyrannosaurus rex*, who lived over 140 million years ago. With neck craned and body low to the ground, the running *Allosaurus* readies itself to lunge at its prey. This bronze model is based on the mount at the American Museum of Natural History in New York City, which depicts a fifty foot mother *Barosaurus* rearing up on her hind legs to protect her baby from the attacking *Allosaurus*.

Barosaurus Copy

The giant *Barosaurus* belongs to a group of immense plant-eating dinosaurs, the sauropods, which includes the largest creatures ever to have roamed the land. The adult *Barosaurus* is portrayed here, rearing up on her hind legs to defend her baby against an attacking *Allosaurus*. She is at the point of dropping down on top of the *Allosaurus* in an attempt to crush it. This bronze model is based on the mount at the American Museum of Natural History in New York City.

Approved by Mark Norell

DINOSAUR SKELETON

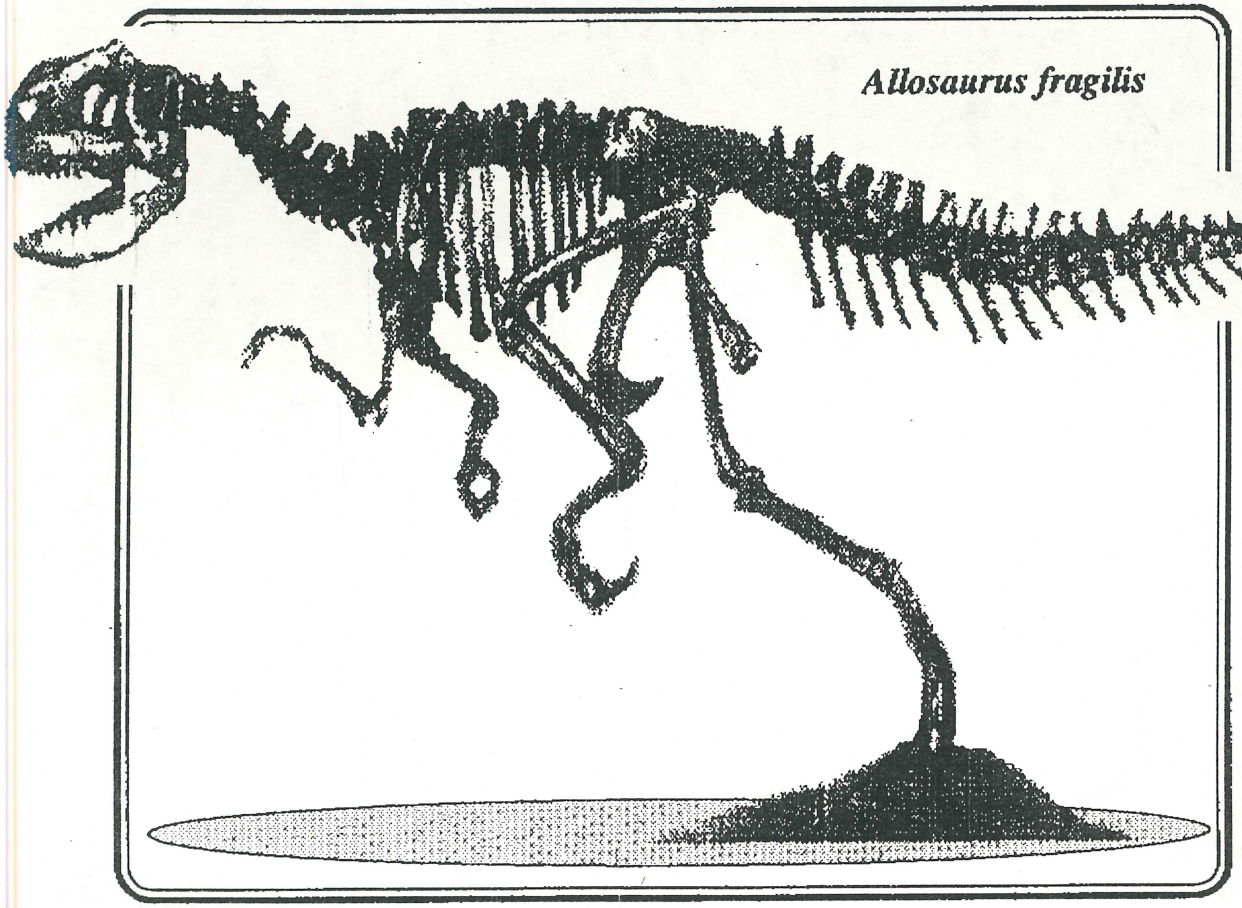


The Jurassic colossus, Barosaurus, towers aggressively in the American Museum of Natural History's new dioroma exhibit in the Rotunda. The mounted Barosaurus skeleton is captured in this remarkable scaled model which is one of the official commemorative bronze editions celebrating the opening of this exciting new exhibit. This standing 12 inch scale model is cast in solid bronze and comes complete with certificate of authenticity.This decorative and educational model is destined to be a highly prized collectible.

Copyright, 1991 - All rights reserved. Designed and manufactured by Maxilla & Mandible, Ltd., New York. Under exclusive licence from the American Museum of Natural History.

for Packing box

DINOSAUR SKELETON



CAPTURING THE DRAMA OF 140 MILLION YEARS AGO, the fierce predator of the Jurassic comes to life in this remarkable 9 inch scaled model, adapted from the American Museum of Natural History's new diorama exhibit in the Rotunda. It is one of the official commemorative scale models celebrating this event. It is designed anatomically accurate after the 26 ft. long original specimen now on exhibit. Cast in solid bronze in limited editions, this decorative and educational model is destined to be a highly prized collectible . Each bronze comes complete with certificate of authenticty.

Copyright, 1991- all rights reserved . Designed and Manufactured by Maxilla & Mandible, Ltd., New York under exclusive licence from the American Museum of Natural History

For Packing Box

copy page attacking allosaur

In the paragraph $1100 names not in italics or bold.

Allosaurus fragilis

The Allosaurus is a fierce meat-eating predator, related to the vicious Tyrannosaurus rex, who lived over 140 million years ago. With neck craned and body low to the ground, the running Allosaurus readies itself to lunge at its prey. This bronze model is based on the mounted skeleton at the American Museum of Natural History in New York City, which depicts a fifty foot mother Barosaurus rearing up on her hind legs to protect her baby from Allosaurus.

Barosaurus lentus

The giant Barosaurus belongs to a group of immense plant-eating dinosaurs, the sauropods, which includes the largest ever to have roamed the land. The adult Barosaurus is portrayed here, rearing up on her hind legs to defend her baby against an attacking Allosaurus. She is at the point of dropping down on top of the Allosaurus in an attempt to crush it.

This commemorative bronze model is based on the mounted skeleton at the American Museum of Natural History in New York City.

American Museum Bronze Collection

This commemorative dinosaur collection is available in limited editions and comes complete with certificate of authenticity. Each scale model is cast in solid bronze and was sculpted under the guidence of the Department of Vertebrate Paleontology, American Museum of Natural History.

Copy for display

MAXILLA & MANDIBLE, Ltd.

Proudly presents the American Museum of Natural History bronze collection of scaled dinosaur skeleton models. Adapted from the actual specimens on exhibit, under exclusive licence.

CERTIFICATE OF AUTHENTICITY

This to certify that the scaled Allosaurus fragilis bronze version is produced in a limited edition of 5,000 copies. This casting is number

Henry Galiano

President

Maxilla & Mandible, Ltd., 451-5 Columbus Avenue, New York, New York 10024
Tel 212-724-6173

Barosaurus and *Allosaurus*

This event *might* have happened 140 million years ago in Wyoming or Utah. A mother *Barosaurus* rears up on her hind legs to protect her baby from an attacking *Allosaurus*.

As *Allosaurus* sprints around the mother, she attempts to counter by dropping on top of the predator and crushing it. The mount depicts the instant the mother begins to descend, with her eye on the *Allosaurus* and her body twisting to keep pace with its advance. Meanwhile, the baby steps nimbly over the mother's tail, using her enormous body as a shield.

You decide the outcome.

Did This Event Really Happen?

In truth, no one knows for sure. Scientists disagree about many aspects of this scene.

Fossil bones are our only real evidence of what these extinct animals were like. Although the fossils tell us a lot about the size and shape of these animals, we can only guess about whether they could have behaved as shown in this scene.

The Evidence

The diagram on the right shows how the bones of the adult *Barosaurus* (colored red) were found jumbled together with the bones of other animals at a site called Howe Quarry in western Wyoming.

By fitting the bones together, scientists can learn about the general size and shape of the animals. Fossil footprints found at other sites provide further evidence that dinosaurs like *Barosaurus* could walk on all four legs and that dinosaurs like *Allosaurus* walked on their two hind legs. However, many other intriguing questions remain controversial or unanswered.

Some Guesses

The illustration on the left represents one image of what the scene might have looked like if it did occur. Several aspects of the mount and illustration are either difficult or impossible to interpret with certainty from the fossil evidence.

For example, could *Barosaurus* rear up on its hind legs? Some scientific studies suggest that it could; however, others imply it could not. Would Allosaurus have hunted individually or in packs? Scientists disagree; in fact, many scientists feel that large carnivorous dinosaurs might have been scavengers rather than active predators. Were dinosaurs brightly or dully colored? Again, the fossils provide no direct evidence, so different scientists and artists have different opinions.

Questions and Answers

For centuries, fossils of dinosaurs and other extinct animals have stimulated our curiosity and imagination. By studying these fossils we have learned a lot about these long extinct beasts; however, many mysteries remain. Come to the exhibitions on the fourth floor and discover more about what we do and do not know.

Legend for Schematic of *Barosaurus* Information Center

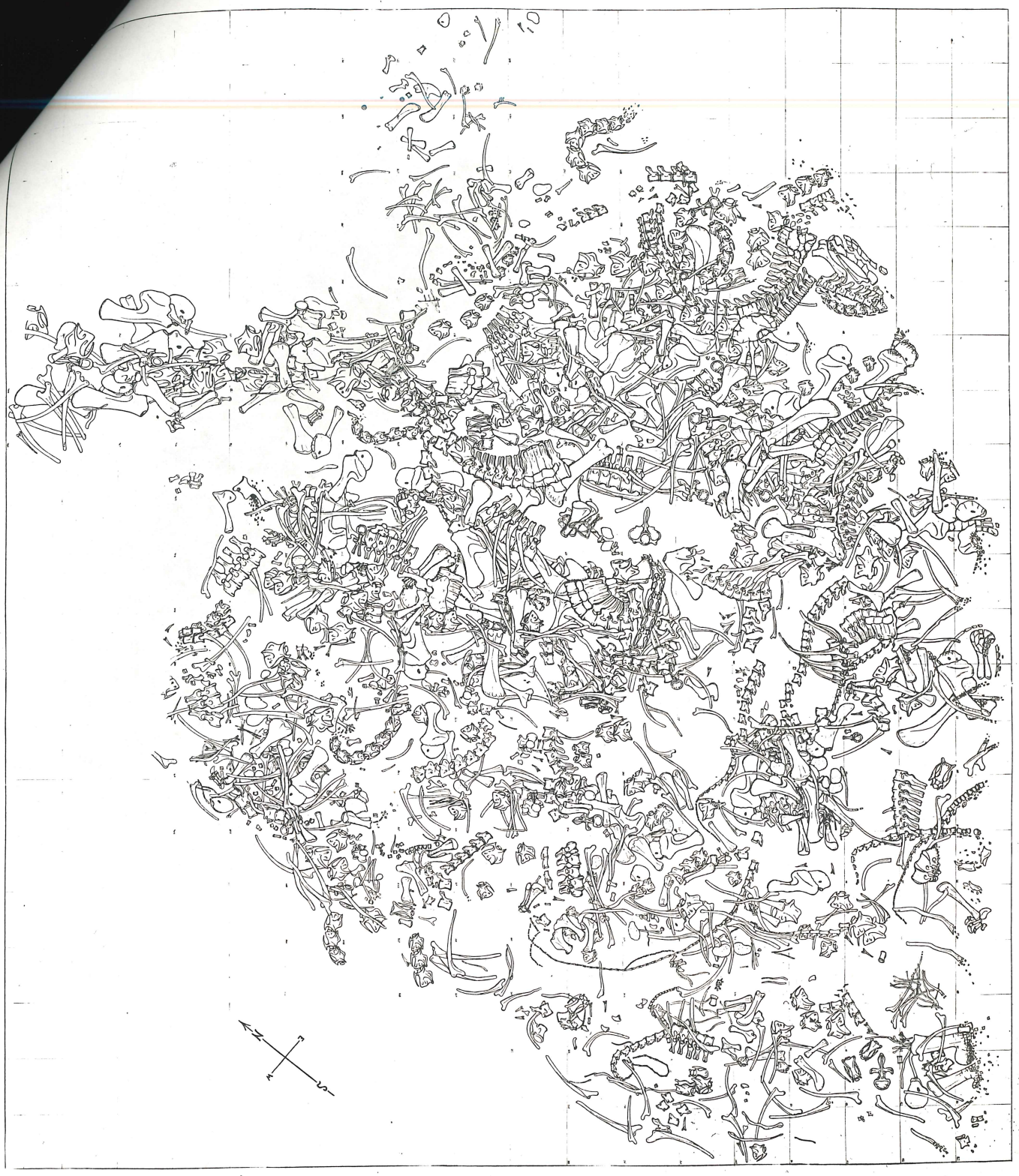
1. Text block describing action.

2. Gurche illustration.

3. Text block concerning what we do and do not know.

4. Quarry map showing how *Barosaurus* bones were arranged when found.

5. Concluding comment with invitation to visit 4th floor.



MAIN TEXT

Barosaurus and *Allosaurus* [need an exciting title, but haven't got it yet]

This encounter of giants might have taken place someplace in Utah or Wyoming about 140 million years ago. Attacked by a carnivorous *Allosaurus*, a mother *Barosaurus* rears up to protect her baby, who moves to hide behind her enormous body. The *Allosaurus* is a relative of the equally fearsome *Tyrannosaurus rex*, while the *Barosaurus* belongs to a family of immense plant-eaters, the sauropods, the biggest creatures ever to have roamed the earth.

These dinosaurs have been cast from real fossils in the museum's collection. Light-weight casts make it possible to mount large animals in the active poses they may have taken in real life, such as this *Barosaurus* about to use her formidable weight to crush a threatening predator. Since real fossils are made of stone, just one of the fossilized bones that make up her neck can weigh over five hundred pounds.

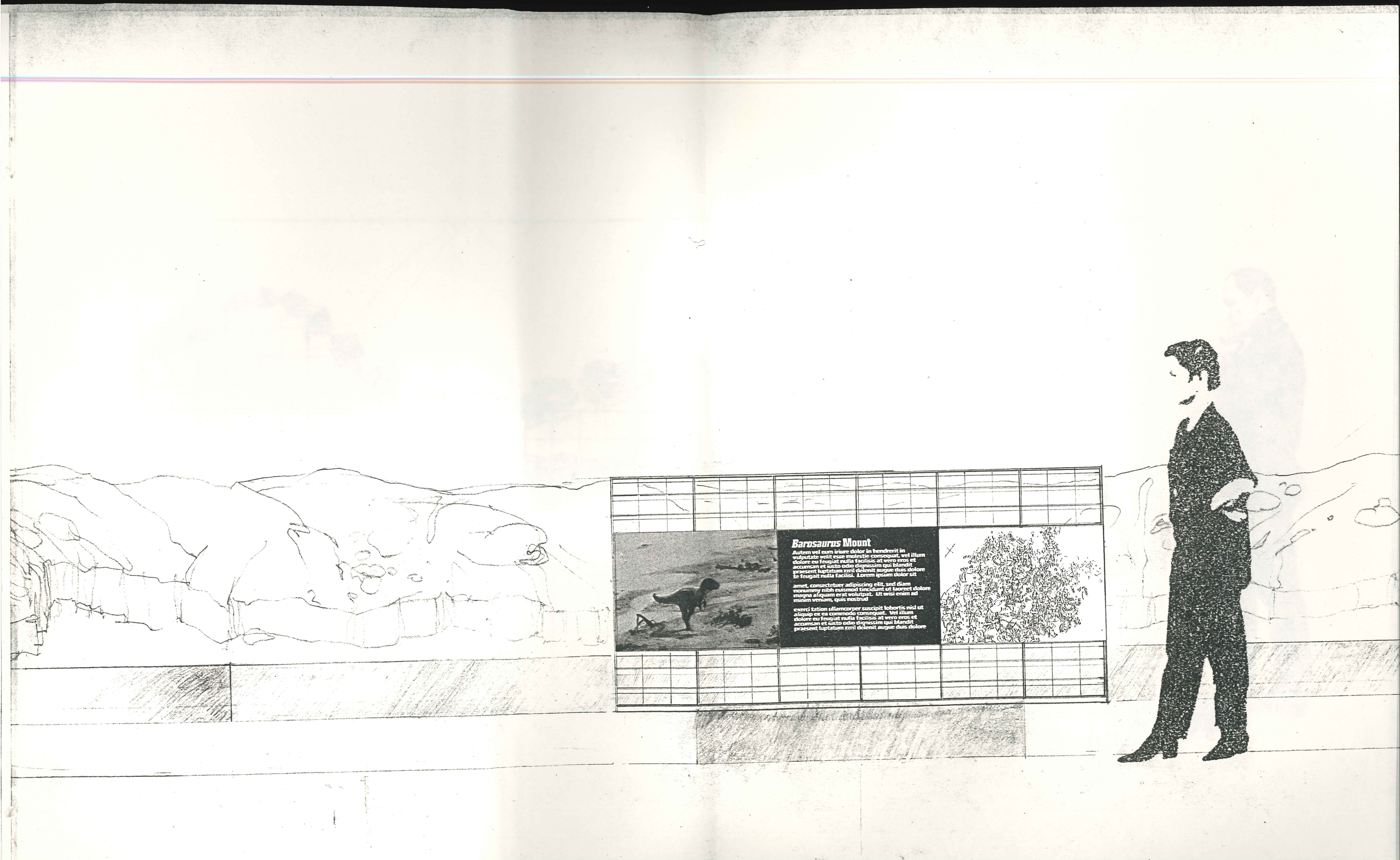
The American Museum of Natural History has the largest collection of real fossils of dinosaurs, mammals, and other vertebrates in the world. Come visit the museum's fourth floor and find out how scientists use the fossils of these amazing animals to ask and answer questions about the past.

GURCHE ILLUSTRATION LABEL

Artist's conception of the scene above. Illustrations such as this are based on information from fossils and comparisons with living reptiles. While fossils tell us about the size and shape of extinct animals, they don't tell us about the colors of dinosaurs or the function of particular features such as the *Barosaurus*'s clawed thumbs. Behavior in particular doesn't leave traces for us to study, so whether these creatures ever looked and behaved exactly as shown here may never be known.

QUARRY MAP LABEL

Quarry map showing how the bones of the adult *Barosaurus* were found jumbled together with the bones of other extinct animals at Howe Quarry in western Wyoming. [add a bit more info. on who found the Barosaurus bones -- AMNH scientists? -- and when, and how scientists assemble such a jigsaw puzzle]


Barosaurus Mount
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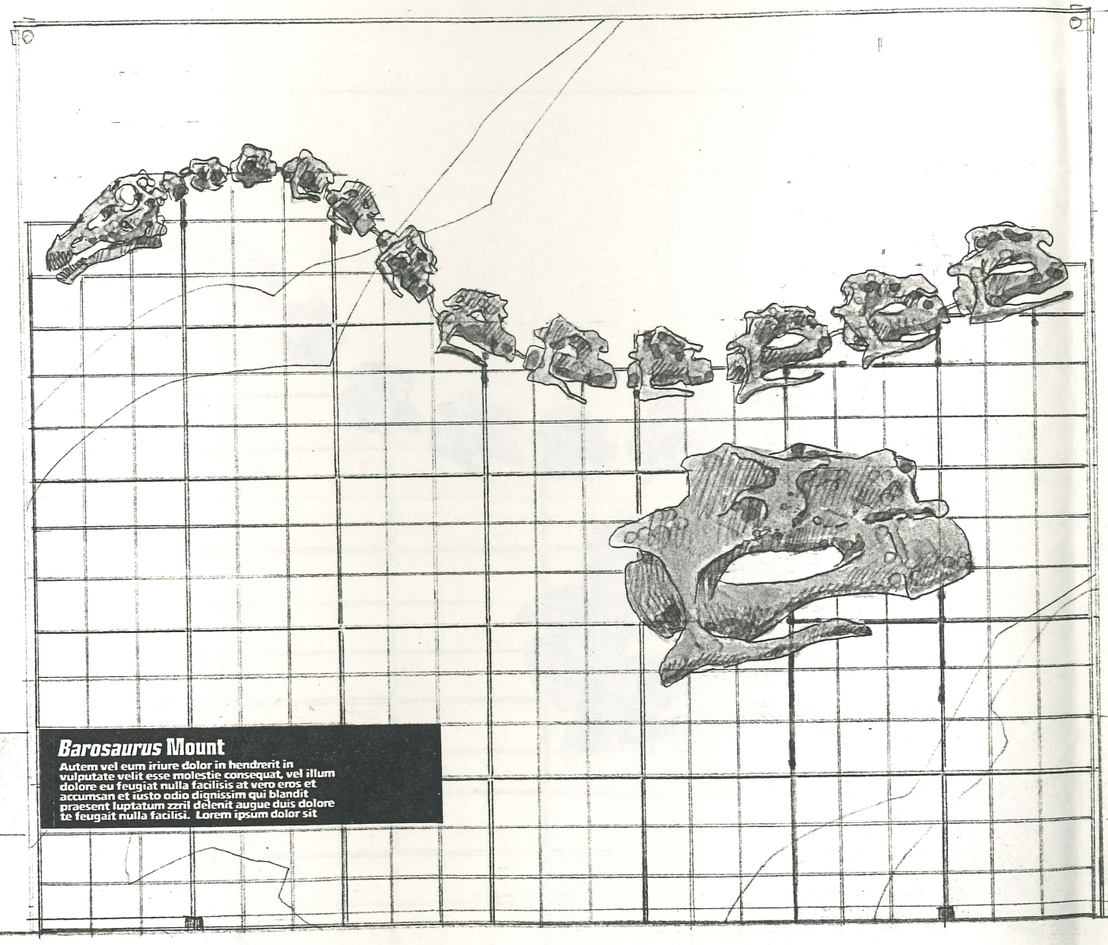

***Barosaurus* Mount**

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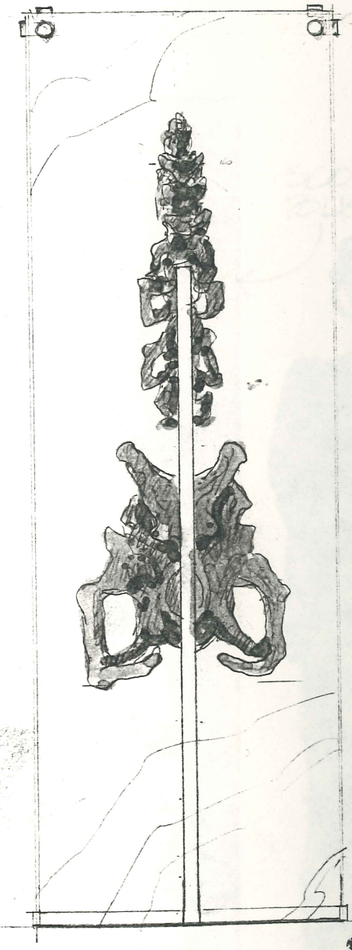

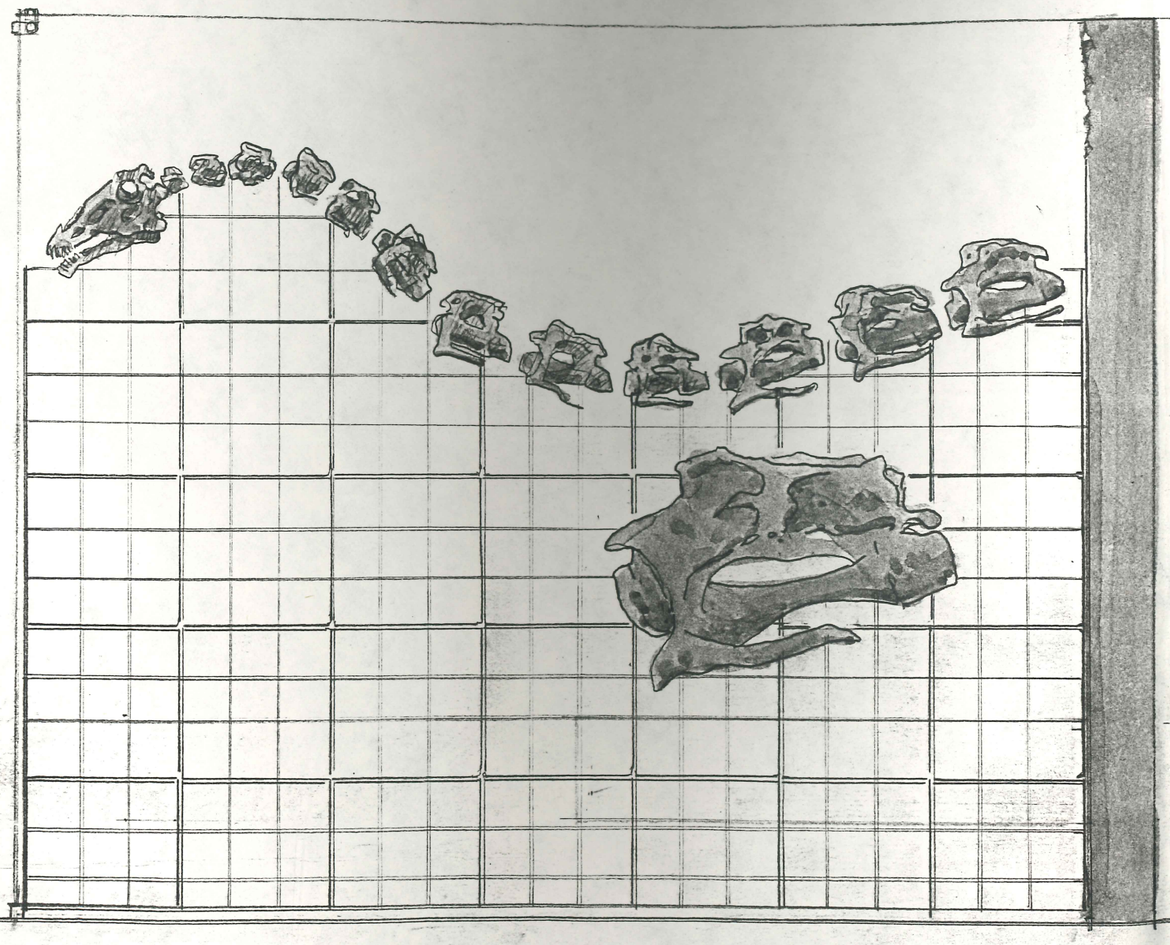

Barosaurus Mount

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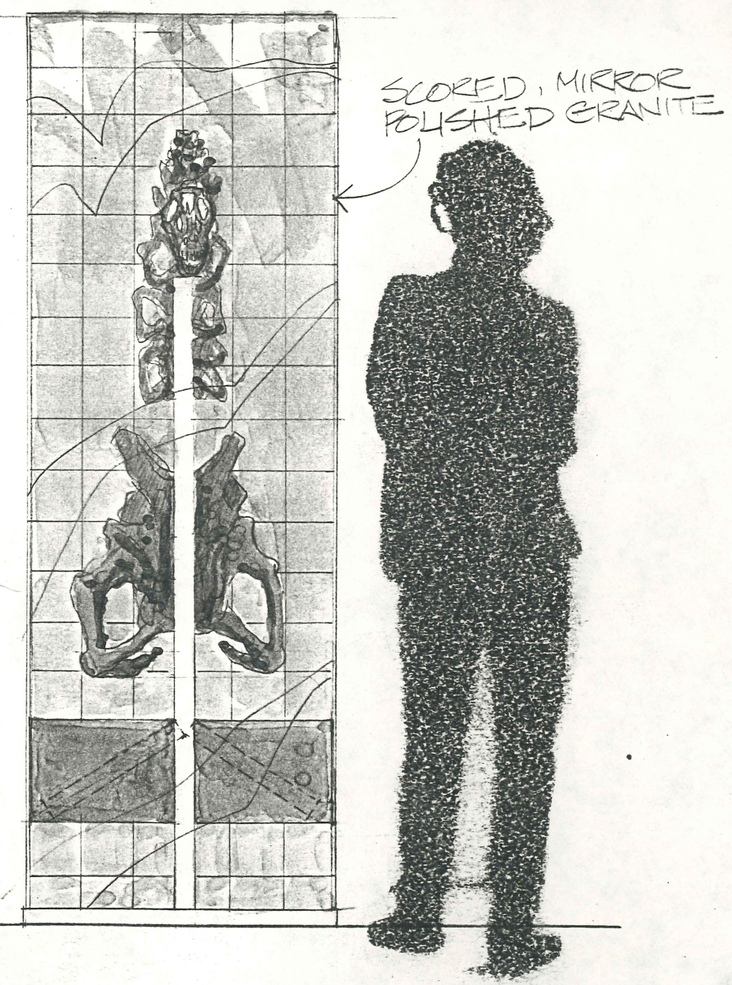


American
Museum of
Natural
History

Fossil Halls Renovation
Department of Vertebrate Paleontology
Fax Number (212) 769-5842

Facsimile Message

To: Peter May

Address:

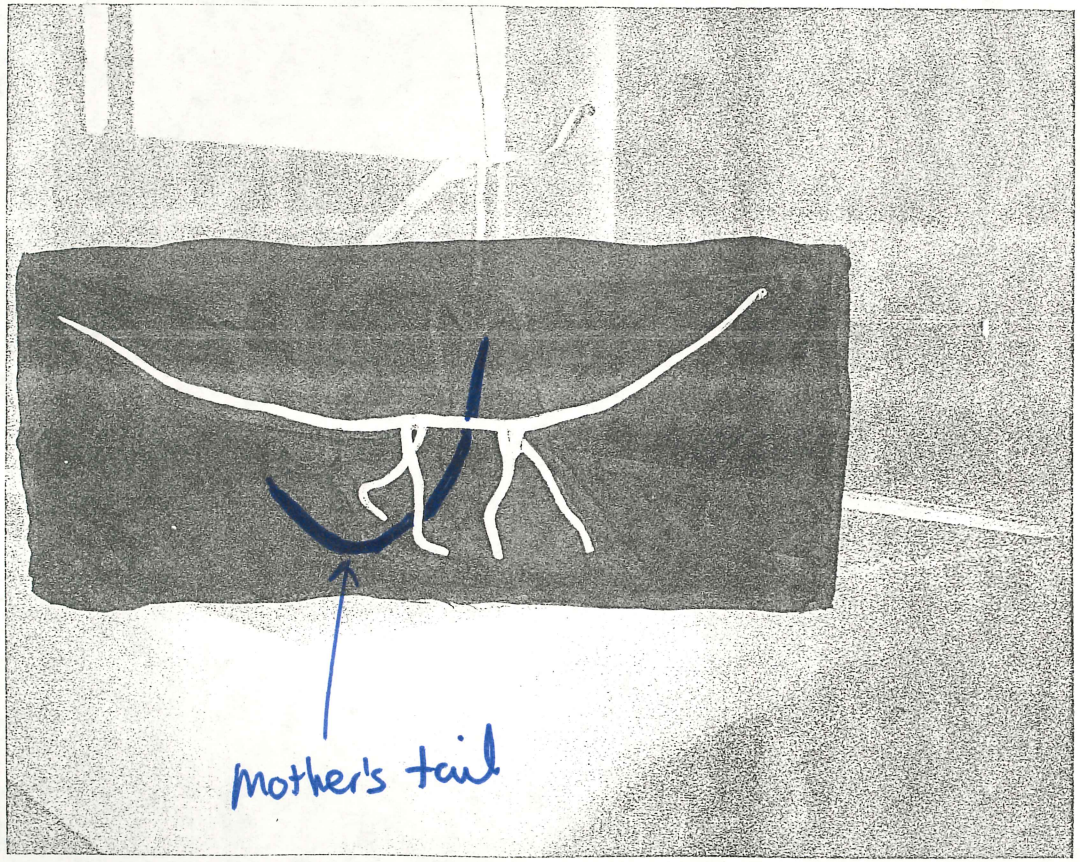
Fax Number: 416-849-[redacted] 9845

From: Melissa Posen.

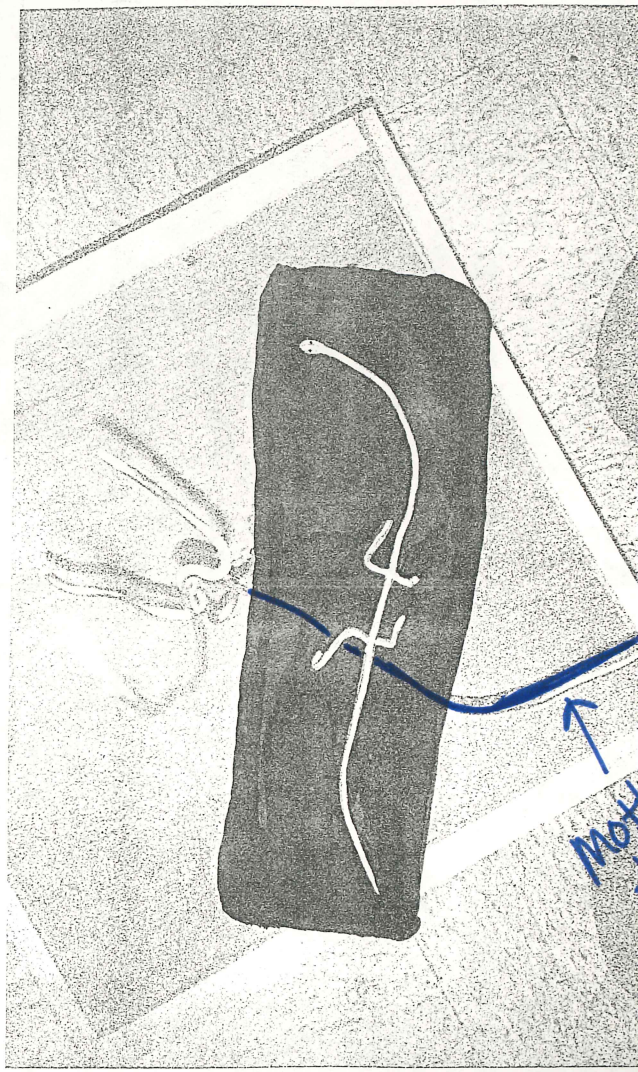
Number of pages including this one: 3

Let me know (truthfully!) if the attached helps: I took a polaroid of the wire sculpture, photocopied it, enhanced it (a little) + faxed it. Does it help you with the position of the baby? If not, please ring me + I will have an artist try + do a better representation of the baby. ok?

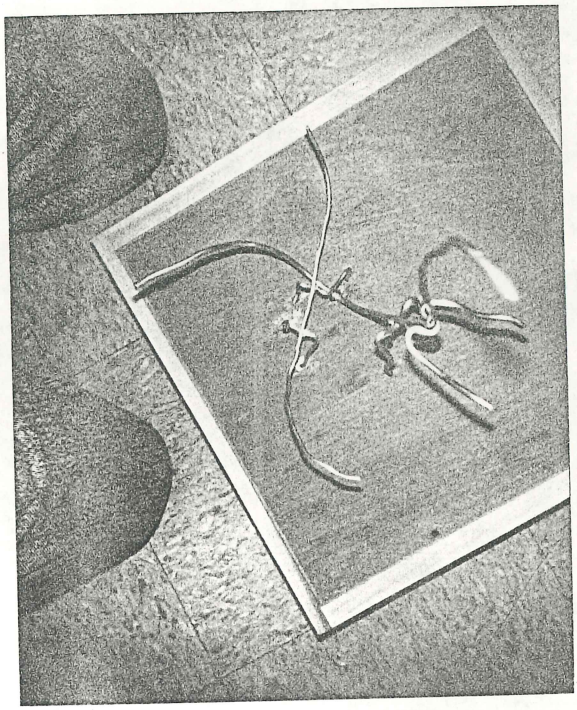
Left hind Limb is off the floor

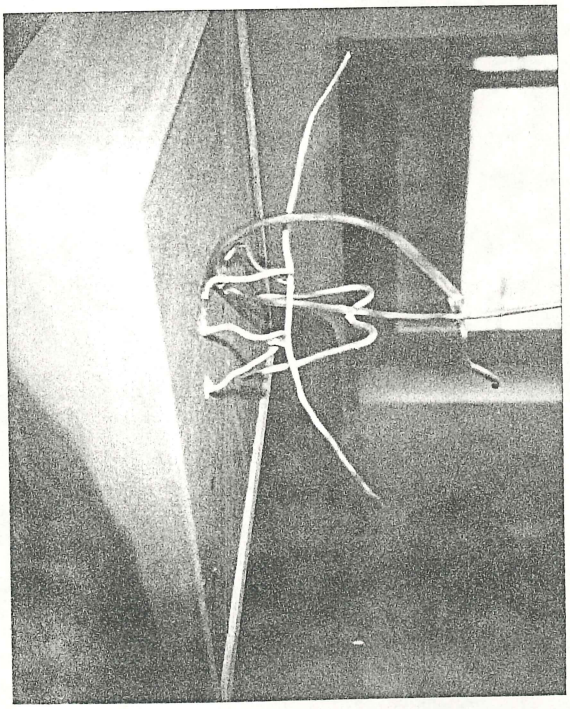


SIDE VIEW



OVERHEAD SHOT





American Museum of Natural History

Agreement

This agreement ("Agreement") is made and entered into on this 30 day of Oct. 1995, by and between the American Museum of Natural History ("Museum") whose address is Central Park West at 79th street, New York, NY 10024 and Research Casting International ("Animator") whose address is 2342 Wyecroft Rd, Oakville, Ontario, Canada .

Scope of Work ("Project"):

Animation of 2 fossil animals for the Animals in Action videos. Each animation to last approx 10 seconds and to be set against a black background. AMNH to provide reference material and to give curatorial advice regarding movement of animals. Stills of additional fossil animals to be added to animations. AMNH to send reference.

Fossil animals to be animated:
Dunkleosteus - a fossil fish
Anhanguera - a pterosaur

"Animator" shall provide "Museum" one (1) beta cam or 1" tape on or before April 1.

"The Project" shall be considered a "work-made-for-hire". The "Animator" irrevocably grants, conveys and assigns to "Museum" exclusively and forever all rights of any kind whatsoever in "The Project", including, but not limited to, all copyrights. All animation sequences, models and molds are the exclusive property of the "Museum".

In consideration for the work herein described and agreed to, the "Museum" shall pay a fixed fee of $10,000 in U.S. Dollars to "Animator". Payments are to be made in accordance with the following schedule:

1)	$3,000 -	upon execution of agreement
2)	$3,000 -	upon approval of animation test
3)	$4,000 -	Upon final completion, delivery of tape and approval by Museum

AGREED TO AND ACCEPTED

For the American Museum of Natural History

Name	Title	Date

For Research Casting International

Name	Title	Date
	PRESIDENT	OCT 30/95

Research Casting International Ltd

2342 Wyecroft Rd, Oakville, Ontario. L6L 6M1
phone: 905 847 0155 fax: 905 847 9727

LETTER OF AGREEMENT

~~TO:~~ Peter May, President
FROM Research Casting International Ltd
2342 Wyecroft Rd, Oakville, Ontario,
Canada. L6L 6M1

~~FROM:~~ Lowell Dingus, Project Director
TO Fossil Halls/Library Renovation
Department of Vertebrate Paleontology
American Museum of Natural History,
Central Park West at 79th Street.
New York, New York 10024

DATE: ~~December 8, 1995~~

This agreement is for the production of one (1) one quarter scale (1/4) juvenile Barosaurus model, one (1) full size, thirty-two foot long (32 ft), juvenile Barosaurus sculpture, one (1) fiberglass cast land mass approximately 30ft by 20ft (irregular).

General Terms and Conditions:

1) The scope of the project to be performed by Research Casting International (RCI) for the American Museum of Natural History (AMNH) includes all work necessary for (a) the complete design, fabrication, coordination, installation related to the juvenile Barosaurus (static) and (b) the fabrication and installation of a cast earth landmass. The Barosaurus juvenile and cast landmass will be mounted on a platform designed by Ralph Applebaum Associates (RAA) and all work by RCI shall be coordinated with the design and construction of this platform. + with AMNH.

2) The Barosaurus (static) will be developed under the direction and responsibility of RCI. With the collaboration and approval of the AMNH the juvenile Barosaurus sculpture will be of the highest quality and include the most lifelike characteristics possible.

3) a)The work involving the 1/4 scale Barosaurus covered by this agreement:

Casting of the juvenile Barosaurus skeleton to gain accurate measurements for the armature for the model. Sculpting of the 1/4 scale model to the approval of the AMNH. Upon approval by the AMNH a silicone rubber mold is to be taken from the model. From the silicone rubber mold three (3) casts will be taken; two (2) hard casts, one(1) for sectioning to be enlarged for the full size sculpture, one (1) for reference.

b) The work involving the full size Barosaurus sculpture covered by this agreement.

Scanning and sectioning the 1/4 scale Barosaurus model for enlargement. Building the full scale armature and introducing the enlarged scanned sections. Laying on the skin layer for texturing and finish work. Taking a RTV silicone mold of the finished sculpture. Casting a full size fiberglass static model in the posture designated by the AMNH.

c) The work involving the cast landmass covered by this agreement.

Preparation of existing landform (30ft by 20ft irregular) to AMNH specifications. Take RTV silicone mold and support mold from prepared landform. Make fiberglass cast of landmass and finish to construction specifications and design parameters supplied by ~~RAA~~ AMNH

4) All manufactured pieces will be able to fit through the minimum size along the access route to the exhibit hall. An unconditional guarantee of one(1) year from the date of delivery applies to all manufactured parts included in this agreement.

~~5) All travel expenses incurred by RCI before the signing of this agreement, as well as a per diem of US$250 per day for RCI staff, will be the responsibility of the AMNH.~~

6) The AMNH will be responsible for all shipping costs, shipping insurance, customs, duties and brokerage fees FOB Oakville for items shipped from Oakville and for items shipped from the location of the robotic company. RCI will be responsible for packing the items securely before transportation.

7) After the juvenile Barosaurus (static) and the cast land mass have been transported to the AMNH a minimum of two (2) employees from RCI will travel to the AMNH to install the finished mount and landmass. AMNH will supply a crew of two(2) people familiar with the building to assist in the installation

8) Upon completion of the mount and final payment, AMNH will gain complete and final ownership of the mount and all its elements, including the molds of the 1/4 scale model and the full size sculpture. No duplicate casts other the ones mentioned in this agreement may be produced or sold by RCI. AMNH will own exclusive license for using the animation footage and photos or other images reproduction of the finished mount; however, upon prior written approval RCI will be allowed to use images of the mount and from the animation in its ~~corporate brochure and video tape.~~ promotional

9) RCI agrees to deliver the finished mount by no later than April 30 1996

Time is of the essence.

9) Cost of the work covered by this agreement.

a) 1/4 scale juvenile Barosaurus

sculpting	9,800	
moldmaking	6,500	
animation model	8,200	
scanning model	3,100	
reference model	3,100	30,700 (finished and paid)

b) Full size Barosaurus

enlarging	8,500	
armature	7,000	
sculpting	45,000	
moldmaking	35,000	
cast	60,000	
installation		155,500

c) Cast Landmass

prepare existing landform 30 x 20ft	
take RTV silicone mold	
cast	
finish to specs	
installation	55,000

d) Total b+c 210,500

10) Payment schedule:

I) Initial payment due upon signing of letter of agreement by representatives of RCI and AMNH. (Dec 1995) 75,000

II) Interim payment due after AMNH approval of work done in first phase including sculpting and molding of earth. (expected Feb. 96) 75,000

III) Final payment due upon completion and installation of finished mount. (expected April 1996) 60,500

Lowell Dingus Date
Project Director
Fossil Halls/Library Renovation
American Museum of Natural History

Peter May Date
President
Research Casting International Ltd

Gerry,

Could you please review this draft of a letter of agreement from Research Casting International. This company, who we have worked with to develop the Dinosaur mounts in Roosevelt Hall, is building a model of a baby *Barosaurus* for the Orientation center on the Fourth Floor.

Peter May, the President of the company, was asked by Lowell and Rich Slawski to include in the contract work that has already been completed and paid.

I would appreciate some feedback from you by this Friday if possible.

Thanks.

Research Casting International Ltd
2342 Wyecroft Rd, Oakville, Ontario. L6L 6M1
phone: 905 847 0155 fax: 905 847 9727

LETTER OF AGREEMENT

FROM: Peter May, President
Research Casting International Ltd
2342 Wyecroft Rd, Oakville, Ontario,
Canada. L6L 6M1

TO: Lowell Dingus, Project Director
Fossil Halls/Library Renovation
Department of Vertebrate Paleontology
American Museum of Natural History,
Central Park West at 79th Street.
New York, New York 10024

DATE: December 20, 1995

This agreement is for the production of one (1) one quarter scale (1/4) juvenile Barosaurus model, one (1) full size, thirty-two foot long (32 ft), juvenile Barosaurus sculpture, one (1) fiberglass cast land mass approximately 30ft by 20ft (irregular).

General Terms and Conditions:

1) The scope of the project to be performed by Research Casting International (RCI) for the American Museum of Natural History (AMNH) includes all work necessary for (a) the complete design, fabrication, coordination, installation related to the juvenile Barosaurus (static) and (b) the fabrication and installation of a cast earth landmass. The Barosaurus juvenile and cast landmass will be mounted on a platform designed by Ralph Applebaum Associates (RAA) and all work by RCI shall be coordinated with the design and construction of this platform and with the AMNH.

2) The Barosaurus (static) will be developed under the direction and responsibility of RCI. With the collaboration and approval of the AMNH the juvenile Barosaurus sculpture will be of the highest quality and include the most lifelike characteristics possible.

3) a)The work involving the 1/4 scale Barosaurus covered by this agreement:

Casting of the juvenile Barosaurus skeleton to gain accurate measurements for the armature for the model. Sculpting of the 1/4 scale model to the approval of the AMNH. Upon approval by the AMNH a silicone rubber mold is to be taken from the model. From the silicone rubber mold three (3) casts will be taken; two (2) hard casts, one(1) for sectioning to be enlarged for the full size sculpture, one (1) for reference.

b) The work involving the full size Barosaurus sculpture covered by this agreement.

Scanning and sectioning the 1/4 scale Barosaurus model for enlargement. Building the full scale armature and introducing the enlarged scanned sections. Laying on the skin layer for texturing and finish work. Taking a RTV silicone mold of the finished sculpture. Casting a full size fiberglass reinforced polyester resin static model in the posture designated by the AMNH.

c) The work involving the cast landmass covered by this agreement.
Preparation of existing landform (30ft by 20ft irregular) to AMNH specifications. Take RTV silicone mold and support mold from prepared landform. Make fiberglass cast of landmass and finish to construction specifications and design parameters supplied by RAA and the AMNH.

4) All manufactured pieces will be able to fit through the minimum size along the access route to the exhibit hall. An unconditional guarantee of one(1) year from the date of delivery applies to all manufactured parts included in this agreement.

5) The AMNH will be responsible for all shipping costs, shipping insurance, customs, duties and brokerage fees FOB Oakville for items shipped from Oakville and for items shipped from the location of the robotic company. RCI will be responsible for packing the items securely before transportation.

6) After the juvenile Barosaurus (static) and the cast land mass have been transported to the AMNH a minimum of two (2) employees from RCI will travel to the AMNH to install the finished mount and landmass. AMNH will supply a crew of two(2) people familiar with the building to assist in the installation

7) Upon completion of the mount and final payment, AMNH will gain complete and final ownership of the mount and all its elements, including the molds of the 1/4 scale model and the full size sculpture. No duplicate casts other the ones mentioned in this agreement may be produced or sold by RCI. AMNH will own exclusive license for using photos or other images and reproduction of the finished mount however, upon prior written approval RCI will be allowed to use images of the mount in its corporate brochure and promotional video tape.

8) RCI agrees to deliver the finished mount to the AMNH no later than April 30, 1996. Time is of the essence

9) Cost of the work covered by this agreement.

a) 1/4 scale juvenile Barosaurus

sculpting	9,800	
moldmaking	6,500	
animation model	8,200	
scanning model	3,100	
reference model	3,100	30,700 (finished and paid)

b) Full size Barosaurus

enlarging	8,500	
armature	7,000	
sculpting	45,000	
moldmaking	35,000	
cast	60,000	
installation		155,500

c) Cast Landmass	prepare existing landform 30 x 20ft	
	take RTV silicone mold	
	cast	
	finish to specs	
	installation	55,000

d) Total b+c 210,500

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III) Final payment due upon completion and installation of finished mount. (expected April 1996) 60,500

L. Dingus 12/28/95

Lowell Dingus Date
Project Director
Fossil Halls/Library Renovation
American Museum of Natural History

P. May DEC 21/95

Peter May Date
President
Research Casting International Ltd