Response from Gene Gaffney and Lowell Dingus, March 8, 2022

Mike, some **confidential** preface might be in order here. Just to provide some temporal context, Mark was not hired as a curator at AMNH until well after the project had been conceived and production began. Although inspired by the work of Dingus and Gaffney, Nat Hist 12 /91, Norell et al was written by Norell with little or no direct input by Lowell and me. Although we had agreed to write it together, Lowell and I became aware of the fact we were not authors only when the ms was in page proof. As I recollect, Lowell and I had no opportunity to edit or alter the ms at that time. The editor recognized that Lowell and I were nonetheless important contributors and added our names as “with Dingus and Gaffney.”

But Lowell (I presume) and I do not know exactly what sources Mark used for some statements in the article. Lowell is an expert on Barnum Brown and might know what more Brown/Barosaur materials (other than the items figured in the Norell article) there are at AMNH.

Questions to Norell at present are problematic. In Jan 2021, Mark had a heart attack followed by a massive stroke. He was paralyzed and on a feeding tube for 6 months. He is now home and able to do some things but he still requires 24 hour care. He is retired and neither he nor I have been replaced. I have no idea about access to Norell’s files or his office. All my Barosaurus notes were taken after my retirement and I presume are in Mark’s office. I will try to see if someone can get access to Norell’s office and look for Barosaur stuff . And the hall photos. But don’t count on it.

\* I read the Norell at al. (1991) account a few days ago. Most of it made sense to me, but on page 36 it says "Earl Douglass, of Pittsburgh's Carnegie Museum, discovered two remarkably well preserved sauropod skeletons. One of the skeletons went to the Smithsonian Institution, the other the the University of Utah". From there on, the story becomes the familiar one of a single skeleton broken up into parts in three institutions. What is the role of the second skeleton here? Is AMNH 6341 in fact a composite of two skeletons?

My recollection of Jack’s statements to me over the years preceding and during the mounting was that this was one of the most complete sauropod skeletons known at that time. Unfortunately, I know nothing about the source of Mark’s statement here. I would guess that it is a lapsus and he meant two parts of one skeleton.

\* Norell et al. (1991:38) write "Only about a fifth of the skeleton was missing". I am really keen to know specifically which parts were missing — and how they were filled in: which parts from other specimens? (Which ones?) Which parts sculpted? (On what basis?)

I don’t know. Presumably Mark got this from Jack. Lowell and I probably knew at the time.

\* Norell et al. (1991:38) again: "Those that would stand near the ground were cast in higher-density and more durable materials, while those higher up were made of lighter substances." Question for Peter, I guess: what substances?

\* "Photos of the hall from that time period, mostly taken to show the brontosaur, also show the Barosaurus neck mounted on plaster pedestals in the bottom of one of the long wall cases." — it would be great to include photos of the gallery at this time: do you have any?

I did have these in my office but I have no idea of their fate when it was broken up. They weren’t with the Barosaur stuff. They are in the AMNH photo archives and available but someone would have to go there and search the files. I had both B&W and some color slides of this. The slides went to Mark before I retired. No idea what happened but he did say that he was going to have all my slides scanned by Scancafe for what that’s worth. These photos were primarily intended to show the brontosaur so they may not be so handy anyway. Ill try asking about this stuff too tho.

\* "Paul, G.S. 1987. The science and art of restoring the life appearance of dinosaurs and their relatives. Fig. 16, page 30. In Czerkas, S.J. and Olson, E.C., editors, 1987. Dinosaurs past and present. Volume 2". I have that book! It would be really good if we could include a reproduction of that painting in the paper, giving its seminal role. I know Greg a little and could approach him for permission, but do any of you know him better? I think he can sometimes a bit prickly, so if there is an existing relationship to lean on, that might be helpful.

I was embarrassed to use inspiration from that fig. Paul is a good artist and restorations are great things to have. But. The jump to being a rigorous, objective paleontologist doesn’t seem to have taken place here. If you want to try including OK, but I could do without it frankly.

\* "The pose, while later criticized by the usual suspects (including one of my own students, Paul Sereno)". Do you have references for published criticisms? Who are "the usual suspects"? I know of a few papers about the physiological problems suggested by the mount but I suspect this is a narrow slice: Hicks and Badeer (1992), Taylor (1992), Choy and Altmann (1992), Dennis (1992), Landry (1992), Badeer and Hicks (1996). What else do we have?

That’s a lot more than I have! Are any of these professional scientists? By usual suspects I think I included the dino “avocational” types and “paleoartists” as well as the dino fans and self promoters who are strongly attracted to dinosaurs.

The Newsday article has critics and we had phone calls etc from people. I wouldn’t bother too much with critics as we don’t claim the mount is the truth, just that theres a lot of latitude in “paleobiology” of extinct organisms.

\* Yes, it would be good if we were able to recover the text of the original signage.

The last paragraph in the Norell et al article pretty much summarizes what Lowell and I were trying to do.

\* "All the specific data in the article came from Jack and Brown records." It would be really helpful to get hold of McIntosh's notes — it would be an appalling waste for them be lost to posterity.

I agree. I noticed that Wesleyan has an online site showing McIntosh has some archived materials in their library. At this point, we have no idea what documents might be in there, but Lowell will endeavor to find out.

\* "As I recall cast or sculpted bones of Diplodocus were used to fill in the missing elements of the Barosaurus adult and juvenile". Not a question, but you might be interested to know: in another thread, Peter confirmed that C2–7 in the mount are cast from the Carnegie *Diplodocus* (and C2 from some other *Diplodocus* I suppose). But he did not use C2–7, but C2–4, 6, 8, 10, to get a better match for the likely lengths of the *Barosaurus* cervicals. But we still need to know what other bones (if any) were filled from *Diplodocus*.

\* "But the current whereabouts of the McIntosh volumes I wouldn’t even know where to start". Do we know family members who we could ask? Or perhaps Mark Norell has it?

\* "We should double-check with Peter, but I’m pretty sure the budget for the project was $250,000". Peter, is this right? Would it be OK to say so in the paper, or do you consider of commercial-confidential?

\* "We can ref the cover of Nat Hist 12/91 for the painting". This is fine if it's the best we can do, but it would be better still if we could reproduce the painting. Any ideas how to go about this? Would contacting Gurche directly be the way to go?

Yes, Lowell will endeavor to contact John and see if he’d be willing to grant us the right to use it.

\* "Also we might put in a ref to the front page of the NY Newsday of Nov 29, 1991". I've made some effort to find this online, but it doesn't seem to have been digitized. Do any of you have a copy?

Yes I have a copy of the front page and the article such as it was. Newsday evaporated I guess but I presume their stuff is still copyrighted in some way. Lowell will try to look into the rights issue(s).

\* "My wife worked at AMNH and headed up the press and media coverage for the opening. If you’re interested, I can check with her to try and get a list of the more prominent outlets that covered it." Definitely!