"Shell games": A case study of storage and rehousing paleontological and geological specimens after critical infrastructure upgrades to a collection space.

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Even with careful planning, large-scale moves and construction projects often lead to unforeseen challenges. In this presentation, we will highlight some of the unique obstacles and constraints faced during a renovation project as well as key curation opportunities and lessons learned. The Non-vertebrate Paleontology Laboratory as part of the Jackson School Museum of Earth History recently renovated a previously non-climate-controlled collection space through a generous donation and a National Science Foundation grant (NSF-1458198). The space stored approximately 1/3 of our collection in an enclosed wiremesh metal cage within a larger building. Renovation included enclosing the space with drywall, the installation of two heating/cooling units, modification of an external entry, and installation of new doors to an adjacent storage space resulting in an increase in square footage. The project required extensive planning before the construction phase to sort and prepare specimens for the move to temporary storage at an off-site facility. It also required logistical planning for the ordering and installation of new cabinets and a walk-in freezer for pest control of the materials to be rehoused into the new space. Our challenges included construction delays leading to increased costs for storage space and the need to shorten our timeline for rehousing specimens. We have a small full-time staff, and we were primarily assisted by graduate and undergraduate students, researchers, and other volunteers. Under these circumstances, we developed a modified freezing protocol and workflow that incorporated image capture of specimen drawers. We transported and imaged over 4,000 cabinet drawers. During this process we also discovered damaged, uncatalogued, and misplaced specimens including types. Our rehousing was completed during the fall of 2019 and due to covid-related constraints post-rehousing data curation continues. Some general lessons include, increase the estimated time for each step, be prepared for the unexpected, and best practices must be balanced with reality. Despite the challenges, a move offers an excellent opportunity to reorganize, improve storage capacity and conditions, incorporate digitization as part of the process, and for specimen rediscovery.