# To Touch or Not to Touch: Taxidermy and the Museum

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Recently I attended a class in which a conservation specialist instructed the students to practice caution when treating an old piece of taxidermy. She directed them to wear masks and don protective gloves. Treating the taxidermy with naked hands was strictly forbidden. Upon hearing the instructor's cautionary words, I wondered why taxidermy, once considered beautiful and desirable, had now become a toxic site. What had occasioned the change? And what does this alteration have to say about the nature of our contemporary relationship to our surroundings. And what does it have to say about the nature of touch? This essay is divided into four parts. The first considers former opportunities to reach out and actually touch taxidermy. This section discusses the nature of touch, particularly its affirmation of reality. The second section attends to the necessity of protecting taxidermy from insect infestations, a concern that until the 1980s, involved using large doses of arsenic and mercuric chloride. The third section discusses how the application of these toxics has recently alarmed museum directors. No longer is one allowed to touch the displayed taxidermy. Part Four addresses this alteration. The shift from welcoming touch to banning it participates in a society in which touch is often feared or deemed unnecessary. Touching the genuine article has been replaced by virtual realities or mediated so that a skin to skin encounter is now not as available. This alteration has compromised the experience of touch and our relationship to the world. | *Keywords: Touch, Taxidermy, Museums, Toxicity, Authenticity*

## 1. Introduction

Several months ago I took an arrangement of four stuffed songbirds, preserved and artistically arranged under a glass dome, to a special class, devoted to taxidermy, in the Department of Art Conservation at Buffalo State University. About ten years ago, this Victorian object d'art had come into my possession when I had found it for sale in an antique shop. Alarmed that this decorative object is in need of restoration, I brought it into the conservation class to be evaluated. I was concerned that the "tree," to which two cedar waxwings and two house finches were affixed, was bending over. The birds, consequently, were perilously tilting to one side. Indeed, one of the specimens awkwardly leaned right up against the glass cover. Moreover,

some feathers were out of order, and a crack in one of the bird's skin was visible. There was also evidence of insect larva at the base of the glass dome.

When the workshop opened, I naively thought that the visiting instructor, a conservationist specialist from the National Parks Service, would demonstrate how to repair these flaws. Much to my surprise, however, rather than launching upon a lesson about how to correct my piece's imperfections, she devoted almost the entire class to lecturing about the risks of being in the vicinity of early examples of taxidermy. Therefore, before removing the protective glass dome covering my arrangement of birds, she insisted that the students practice caution. She told them to be sure that the room was well ventilated. She also instructed them to wear masks, don protective gloves, as well as shield themselves with a lab coat. Moreover, she directed them to keep their fingers away from their mouths. Treating the arrangement with naked hands was strictly forbidden.

Upon hearing the instructor's cautionary words, my perception of my mid-nineteenth–century taxidermy abruptly altered. What I had previously considered to be a beautiful piece of Victoriana had now become a potentially toxic site that could possibly compromise a person's health and contaminate the immediate environment. What, I wondered, had happened over time to initiate so much prudence? Why had earlier taxidermy specimens, once deemed so valuable and approachable, recently become objects from which to keep one's distance? And what does this behavioral shift have to say about the nature of our contemporary relationship to our surroundings?

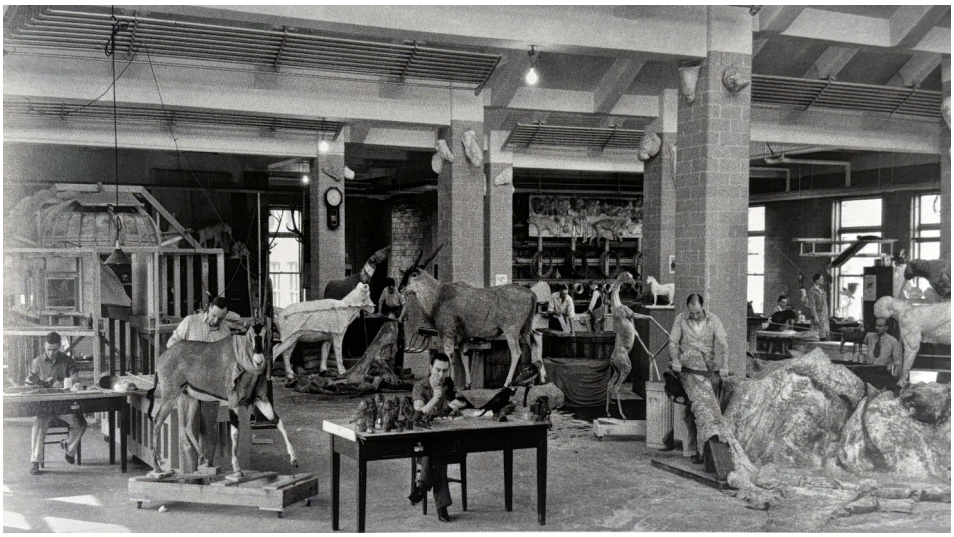
To address these questions, in Part 2, *Touching Taxidermy*, I first consider the impulse and former opportunities to reach out and actually touch taxidermied creatures; then, in Part 3, *Collecting, Preserving, and Protecting the Dead*, I turn my attention to the need to protect a museum's stuffed specimens from insect infestations, a necessity that until the 1980s, involved using large doses of arsenic and mercuric chloride. In Part 4, *A Shift*, I discuss how the application of these toxics has, within the last quarter of a century, alarmed museum directors, curators, and conservators — indeed, so much so that the culture of natural history museums has significantly changed. No longer is one allowed to touch the displayed taxidermy. In Part 5, *Consequences and Implications*, I suggest that this shift participates in a society in which touch is often either feared or deemed unnecessary. To some degree, the opportunity of touching the real thing has been replaced by virtual realities or mediated so that the intimacy of a skin to skin encounter is now not as available as it once was. This alteration has compromised the experience of touch.

## 2. Touching Taxidermy

From the eighteenth century up until the early decades of the twentieth century, the visiting art conservationist's cautionary remarks to the students would rarely or ever have been uttered. Rather, a far more relaxed attitude toward taxidermy would have prevailed. Nineteenth-century paintings reveal

this more lenient deportment. For example, in a ca. 1870 painting, *The Taxidermist*, by Leopold Loeffler, a bare-handed taxidermist holds and works on a bird he is preparing. No gloves protect his hands; no mask covers his face. Across his small work table sit a young child and her guardian. No one wears protective clothing. Instead, enthralled, they all draw as closely as possible to the stuffed specimen. In another illustration – this one from an 1875 issue of the *Scientific American* – a bare-handed taxidermist blithely sits at his table and shapes a bird's skin.

Early twentieth-century photographs continue to portray similarly casual attitudes. In P. A. Morris's comprehensive *A History of Taxidermy: Art, Science and Bad Taste* (2010) are numerous period photos of museum workshops in which gloveless taxidermists freely work on various animal and bird specimens. One particularly striking image shows a staff member sitting at his table in a vast studio attached to the American Museum of Natural History. Surrounded by large beasts in various stages of preparation, this taxidermist works on a bird of prey — note that his fingers rest close to his mouth.



Early 20th Century photograph. Taxidermy Workshop.
Source: Image no. 314354 Courtesy American Museum of Natural History.

In other parts of the studio, six of his colleagues run their fingertips along specimens they are preparing for exhibit. Photographs of such practices abound. For instance, in another, a taxidermist smooths a stuffed elephant's hide with his bare hands.

Significantly, staff members, working behind the scenes, were not the only ones to exercise this freedom to touch natural history specimens. During the late eighteenth and through the nineteenth-century, visitors to museum galleries were allowed to walk up to the taxidermy displays and indulge

an impulse not only to draw close to the taxidermy but also and, most especially, to touch the skins of the various mounted animals and birds. No *Please Don't Touch* signs prohibited this inclination. Period images depicting museum rooms illustrate just how accessible taxidermy once was. For instance, in the exhibition rooms within the Monte Carlo Museum and the Provincial Museum in Victoria, B. C., visitors would have once easily brushed up against the prepared skins of tigers, lions, and polar bears.


Taxidermy, Provincial Museum. Victoria, B.C. 1912 Postcard.
Source: Author's collection.

They would have extended their inquisitive hands and stretched out eager fingertips so as to touch or pat other exotic specimens either perched on open shelves or freely standing in neighbouring spaces. Even the taxidermy set aside within a museum's closed cabinets would have been accessible, for during earlier days, these locked cabinets were opened up by a guide, who escorted people around exhibits and offered them an entrée to their contents.

Generally speaking, from the late eighteenth and throughout the nineteenth century few protective barriers stood between a museum visitor and a mounted specimen. A cartoon in an April 12, 1856 issue of *Punch* humorously depicts an amusing consequence of this reality. The cartoon shows "old Mr. J—N—S" walking around the galleries of a private collection. He comes to what he thinks is a stuffed cat, and, motivated by an impulse to stroke this specimen, he touches it. But he is mistaken; it is actually a live owl. Much to his discomfort, he suddenly finds himself attacked by a perturbed and agitated owl (Colley, 2014, p. 66.).

It should be noted that these more lenient attitudes existed in venues other than museums. For instance, stuffed creatures were on display and handy for all to touch and admire in many a Victorian and turn of the century barber shop. As Morris's history of taxidermy documents, hairdressers in villages and towns sometimes practiced and sold taxidermy to supplement their income. Indeed, many a commercial enterprise or club displayed mounted specimens, and, of course, taxidermy arrangements were regularly seen not only within country estates but also in middle-class as well as working-class homes. Innumerable taxidermy pieces crowded the walls, hallways, counters, tabletops, sitting rooms and cabinets within people's living spaces. To have such an arrangement was a significant part of interior decorating. In this way, taxidermy not only literally brought the wild and the foreign into the domesticity of the interior but also offered people of all classes opportunities casually to run their hands over and feel the skin, fur, and feathers of what was on display. Furthermore, up until the early decades of the twentieth century, taxidermy was also a common prop in photography studios. People once delighted in having their portraits taken while embracing or straddling the back of some wild, ferocious beast. For example, one "glamour postcard" presents an attractive young woman hugging, if not suggestively fondling, a tiger skin; another displays ladies gleefully mounted on a taxidermied lion. Notably, no "Please Don't Touch" signs interfere with these photo shoots. It also cannot be forgotten that during the nineteenth-century and even up until the first half of the twentieth century, fashionable women regularly fingered the stuffed birds and feathers that adorned their hats and clothing. For the purchaser and wearer of these items, little thought was given to the dangers of repeatedly handling such merchandise.

In this regard, it is interesting to note that this former practice of drawing close to and touching wild creatures from foreign lands was also often present within a growing number of zoos and private menageries in which the public could spend many an hour observing a lion pacing in its enclosure or watching a chimpanzee within its cage. If pictures from the late nineteenth century are to be believed, zoos too seem to have tolerated the public's desire to caress or handle what was on display. Longing or daring to stroke a wild beast, people once extended their hands through the bars of the animal cages so as to reach for what was beyond the usual boundaries of their lives. As witness, postcards from the late nineteenth-and early-twentieth century feature such images as a visitor stroking a tapir, a child stretching her arm through the bars so as to feel a rhinoceros's muzzle, and a young woman kneeling down so as to reach through a guard rail and stroke a beaver's fur.

Given this practice of touching live and perhaps snarling wild beasts in a Victorian zoo, one wonders, though, why the era's public was ever attracted to taxidermy. Having experienced the pleasurable thrill of reaching toward animate, breathing creatures in a zoo, one ponders why did early museum visitors even bother to extend their hands toward lifeless, stationary, stuffed renditions of these animals and birds? What was the attraction? Why reach

for the dead? I suggest that the museum public, knowing full well that the mounted specimens before them had once been very much alive, felt compelled, even excited, to run their fingers over a bird's actual feathers or a mammal's fur. Touching made the specimens real and, in a sense, come to life.[1] As Carolyn Korsmeyer (2022, p. 25) observes, the very act of touching promises "the peculiar delight of [an] encounter with the real thing".[2] Such a motion summoned the thrill of being in direct contact with the genuine article. And with impunity too, for people placed their hands on what otherwise was possibly dangerous or forbidden in the wild. For them, these were breathtaking moments. Moreover, by actually touching the animal's skin, people could, in a sense, travel beyond the boundaries of their daily existence. That is to say, taxidermy "transported" its viewers to foreign lands — to areas and landscapes most would never go. Recognizing this benefit, the great nineteenth-century collector and taxidermist Charles Waterton praised the value of museums. In 1871 he observed:

> Museums ought to be encouraged by every means possible [...] the zoological specimens which they contain, although prepared by the wrong principles, are nevertheless, of great interest; since they afford to thousands, who have no means of leaving their own country, a frequent opportunity of seeing the rare and valuable productions which are found in distant parts of the globe. (Waterton, 1871, p. 540)

What made the experience of touching taxidermy even more electrifying and desirable was the tingling expectation that the stuffed animal, though very much dead, might suddenly come to life under one's fingertips. Touching the beast's skin resuscitated its being. This gesture conjured up a tangible sense of life and, thus, for a moment resurrected the creature. As Claudia Benthien has noted, skin, the largest organ in our body, is capable of appropriating the totality of the subject's being and making what is absent present. Indeed, skin has the power to summon the whole creature. As such, it functions "as a stand-in for a 'person,' 'spirit,' 'body,' or a 'life'." Skin, therefore, "metonymically [represents] the whole human being" (Benthien, 2002, p. 13, p. 17). In this respect, taxidermy paradoxically summons the living. A stuffed specimen's skin, though clearly no longer living, revives what was once alive.

However, the consequences for the viewer can be confusing, for as Rachel Poliquin observes in her *Breathless Zoo*, a mounted specimen catches the viewer between realizing that the object on display is "mute and manufactured" and, simultaneously, recognizing that it is "no mute and manufactured object." She concludes, "one can never escape the startling realization that this static thing in a very real sense is an animal still; the eyes may be glass, but the animal stares back" (Poliquin, 2012, p. 50).

1 In *Bodily Sensations* (1962), D. A. Armstrong observes that "touch is the sense that gives us access to reality" (Armstrong, 1962, p. 30).

2 In *Things* (2022), Carolyn Korsmeyer discusses "the peculiar delight of encounter with the real thing" (Korsmeyer, 2022, p. 25).

A few years ago, Poliquin's observation was validated for me when I was walking around the Zoology Museum at Cambridge University. My attention was drawn to a ten-year old child gazing at a free-standing stuffed zebra. I watched the young boy, as if daring himself to touch the zebra, repeatedly and tentatively extending his arm and fingers (and then nervously withdrawing them). Caught within the paradox of whether the zebra was alive or dead, he wondered if the zebra would shudder in response to his touching. Would it turn and nip him or would it remain still and unresponsive? The vibrant mounted skin entangled him within the paradox of the zebra's living death.

As time passed in the nineteenth century, however, taxidermy was not as accessible to museum visitors, for in order to protect the stuffed specimens from damage (partially the consequence of the public's inquisitive fingers), Victorian museum directors increasingly felt obligated to place their taxidermy behind tightly sealed glass cases. As a consequence, the public had fewer opportunities directly to touch the displayed taxidermy. I would like to propose, however, that a tactile response to these specimens on display did not entirely disappear. The Victorian general public's excitement and curiosity while standing before the real thing must have still triggered some sort of tactile response. Not all was lost.[3] As many theorists suggest, the sensation of touch can be possible without the literal physical act of touching. Direct contact with an object is not always, as one might think, necessary for such an experience. Hypothetical touch is still possible, for being in close proximity to the object is enough. As Korsmeyer (2022) points out, "The absence of actual contact does not erase what we might think of as implicit touch, which is shorthand for possible or hypothetical contact." She explains, "Proximity can serve in place of actual contact" (Korsmeyer, 2022, pp. 40-42). I agree and believe that when it comes to viewing taxidermy in a museum, the sense of immediacy experienced by the public when standing directly before and gazing into a glass case can indeed suggest the sensation of touch. Viewing the fibers, say, of a leopard's fur and noticing the sharpness of a creature's claws, a visitor can conjure up the feel of the hide's coarse texture or even the pain inflicted by the its terrifying claws. Provoked by these proximate visual clues, a tactile awareness can emerge. This possibility supports the observation that touch does not seem to have a single sense organ. Instead, it is a collection of distinct senses rather than a single modality. As Matthew Fulkerson (2012, p. 200) observes, texture and shape are processed by both vision and touch. These two senses can work in tandem. They are proximal or analogous. Korsmeyer's observation that "the information addressed to one sense can produce a complementary echo in another sense that is not directly addressed" (Korsmeyer, 2018, p. 369) has integrity.[4]

[3] I disagree with Isobel Armstrong and Brita Brenna who argue that the panes of glass in museum cases "act as barriers that lock the animal up, making them not just untouchable for our hands, but inaccessible for our gaze" (Brenna, 2013, p. 540).

[4] Other theorists of touch, such as Charles Spence and Tim Bayne (*Is Consciousness Multisensory?*), Casey O'Callaghan (*Not All Perceptual Experience is Modality Specific*), and Matthew Fulkerson (*What Constitutes Touch*) seem to complement Korsmeyer's perspective when they suggest that the presentation of a stimulus in one sensory modality influences the perception/performance of an individual responding to a stimulus presented in a different modality. Not all perceptual experience is modality specific. These essays are available *Perception and Its Modalities* (Stokes, Matthen and Biggs, 2015).

### 3. Collecting, Preserving, and Protecting the Dead

In the nineteenth century, the sheer amount of taxidermy that was on display and available to touch was vast. Massive collections of treated skins and taxidermy crowded a growing number of national, regional, and private museums. For example, William Swainson, the renowned nineteenth-century ornithologist, left over 2,700 prepared birds to the University of Cambridge's Zoological Museum. So many posed a significant storage challenge. Authorities of the Museum had eventually to distribute many of Swainson's collection to other places. Another statistic is revealing. The Natural History Museum in London, founded in 1881, is home to 80 million specimens. And the British Museum, once packed with specimens, has had to relegate thousands to its basement.

One reason for these astounding numbers is the Victorian's fascination with natural history, an interest that was driven by not only a compulsion to identify and classify the natural world but also the infrastructure of British imperialism that supported naturalists' efforts to gather and learn more about creatures from faraway.[5] The transportation and various military, commercial or administrative networks associated with colonialism opened up shipping passages and land routes that made getting to and around distant foreign countries and regions more possible. Through these means, the 13th Earl of Derby, President of the Linnaean Society and a passionate collector, had over 20 agents in North America, Central America, South Africa, South America, India, Australia, New Zealand, and China. Through them, he shipped back not only live animals but also hundreds of skins, some of which were later to be stuffed or become cabinet skins.[6]

Among other naturalists who took full advantage of the colonial network is Charles Waterton (1782–1865), whom I have quoted earlier. Waterton of Walton Hall, in Wakefield, Yorkshire, first went to his uncle's slave plantations in British Guiana in 1804. After initially managing those estates near Georgetown, he began to devote his life to exploring and collecting natural history specimens from the wilds of Demerara and Essequibo. He also travelled as far as Brazil and eventually into the United States. In his travels, a spellbound Waterton, armed with a gun, collected thousands of rare and exquisitely beautiful birds and zoological specimens which he brought back to England to preserve, mount, and display.

Swainson (1789–1855), also referred to earlier, was yet another prolific collector. He travelled to Italy, Malta, Greece, and Brazil from where he dispatched vast collections of indigenous plants and animals to British and French museums. There were, of course, thousands of others, including Charles Darwin, who while on the H.M.S. Beagle (1831–1835) shipped back

5 Harriet Ritvo in *The Animal Estate* (1989) adamantly equates the conquest or possession of exotic territories with the desire to institutionalize and classify an area's natural resources.

6 Clemency Fisher describes the museum as it was during Lord Derby's lifetime: "Most of his specimens were mounted and arranged in conventional glass cases according to the taxonomic groups and were set off by linen backdrops. There were also cabinets with drawers of skins" (Fisher, 2012, p. 49).

500 bird skins. The list is endless. Other than these better known explorers are the unnamed sailors on board ships sailing to foreign lands — to "t'other side of the sun" (Gaskell, 1996, p. 35). These sailors brought back wild life specimens to sell to local amateur enthusiasts, who would go down to the docks and purchase them, so as eventually to preserve and place these exotic creatures in their own modest cabinets of curiosities. A passage from Elizabeth Gaskell's 1848 novel *Mary Barton* reminds its readers that, in the nineteenth century, branches of natural history were once received with interest, and studied with absorbing attention by "many a broad-spoken, common-looking factory-hand" (Gaskell, 1996, p. 39). She observes: "Such are the tastes and pursuits of some of the thoughtful, little understood, working-men of Manchester" (Gaskell, 1996, p. 40).

These enthusiasts, however, did not spend all their energy amassing, mounting, and displaying what they had bagged or purchased. Significantly, they also routinely put considerable effort into protecting their specimens from being damaged or devoured by any number of invasive insects. This threat had to be continually monitored, for nothing was quite as menacing to a collector as the destruction levied by these pests. Naturalists and taxidermists were keenly aware that more than any other disastrous element (such as losses due to shipwrecks), moths, flesh-eating beetles, ants, and mites could quickly invade and destroy an animal's or bird's skin or devour its flesh. Museum curators were similarly sensitive to such incursions. They knew that once the specimens reached their galleries, destructive insects could also creep through the tiniest cracks or hide within the smallest of the skin's recesses and damage not only the specimen itself but also the surrounding taxidermy. Indeed, this reality is still with us, for in May, 2020, a headline announced that there was an outbreak of flesh-eating beetles, at the Natural History Museum in London. 80 million specimens were in need of protection. These concerns eventually would complicate the act of touching the taxidermy on view.

Many field handbooks and narratives from the Victorian period complain about these pests. For instance, an annoyed Paul B. Du Chaillu in his *Explorations and Adventures in Equatorial Africa* (1861) grumbled:

> I begin now to have so many animals on hand that I find I cannot go as far as the Nazareth. The risk of losing all my collection is too great, and the trouble of taking care of it is greater still. The ants — those little pests — are constantly on the look-out for prey; and it is impossible to leave a dead animal about for the shortest time without imminent risk of having it destroyed [...] I have more than once been reduced to the brink of despair by finding a choice bird or other animal in one night [...] completely riddled and ruined by ants in the morning. (Du Chaillu, 1861, p. 159)

Pests could easily spread from one skin to another. Therefore, as if reverting to the seventeenth-century practice of soaking letters sent from plague-ridden London in order to eliminate the pestilent matter, Victorian collectors, before shipping their specimens back home regularly soaked their hides and feathers in turpentine and rubbed the inside of the skin with

arsenic, arsenical soap and burnt alum; some even treated the skin with mercuric sulfide.

In the nineteenth century, a keen sensitivity to the damage pests could inflict prompted places, like the Smithsonian Institution, repeatedly to address the problem. For instance, in its publication, *Directions for Collecting, Preserving and Transporting Specimens of Natural History* (1859), Joseph Henry instructed collectors to be sure to treat their specimens with a good amount of arsenic before transporting them home (Henry, 1859, p. 10). This problem was still being addressed as late as the 1980s. For instance, in 1988 R.R. Askew from the University of Manchester was warning that "Several insects feed naturally [...] on the dried remains of animal bodies, on skin, horn, air, and feathers [...] To do nothing to protect a collection is to condemn it to destruction by pests" (Askew, 1988, p. 400).

From the eighteenth-century up until the mid-twentieth century, of all the treatments to prevent such an invasion, arsenic was the most popularly prescribed. Powdered arsenic (the common arsenic of the shops) was often applied to a creature's moist skin or mixed with alcohol or water to the consistency of molasses, and spread over the specimen with a camel-hair brush. Replacing earlier and often ineffective methods of packing the skins in aromatic boxes full of salts, hot spices, resins, and gums — all once used in mummification, the resulting arsenical soap served the purpose. As a consequence, up until recently, naturalists in the field, in addition to lugging with them such items as panniers, kettles, a double or single barreled gun, string, mosquito-netting, cotton, dissecting instruments, scissors, knives, and 5 gallons of alcohol, carried a plentiful supply of arsenic in two-pound tin canisters. With bare hands and a brush, they applied this arsenic, either dry, mixed with alcohol, or used in arsenical soap to the moist skins of birds and quadrupeds.

Victorian taxidermy manuals, such as Swainson's *Taxidermy with the Biography of Zoologists and Notices of Their Work* (1840) and Captain Thomas Browne's *The Taxidermist's Manual; Or the Art of Collecting, Preparing, and Preserving Objects of Natural History Designed for the Use of Travellers, Conservators of Museums, and Private Collectors* (1851), include recipes for arsenical soap.[7] Swainson's manual, for instance, contains one for French arsenical soap:

> Camphor, 5 ounces; powdered arsenic, 2 pounds; white soap, 2 pounds; salt of tartar, 12 ounces; powdered chalk, 4 ounces. Cut the soap into small slices as thin as possible; put them into a pot over a gentle fire with a very little water, stirring it often, with a wooden spoon; when dissolved, add the salt of tartar, and powdered chalk: take it off the fire, add the arsenic, and stir the whole gently: lastly, put in the camphor, which must first be pounded in a mortar with a little spirit of wine. When the whole is properly mixed together, it will have the consistence of paste. (Swainson, 1840, p. 28)

[7] Thomas Browne's recipes for arsenical soap can be found in his *Taxidermist's Manual* (Browne, 1951, pp. 115–116). Arsenical soap was invented by Jean-Baptiste Bécoeur (1718–1777). His arsenical soap was only employed by others after his death when his recipe was revealed in 1800.

Waterton, however, shunned the use of arsenic. He chose rather to protect his skins from invasive pests by soaking them in a solution of alcohol and bichloride of mercury. Waterton's biographer, Brian W. Edginton, describes the method — a process that lasted into the early twentieth century:

> He soaked his skins in a solution of bichloride of mercury and alcohol, which soon made them [the skins] firm to support themselves. It also made them anti-putrescent and to a large extent repellent to insects [...] He used one teaspoon of bichloride (corrosive sublimate) to a bottleful of alcohol, and soaked each skin for anything from three to nine hours, according to its thickness. Then it was dried and molded into shape. (Edginton, 1996, pp. 63–64)

### 4. A Shift

Notably, however, when these taxidermists were applying arsenic or mercurial chloride, they were not excessively concerned or anxious about the treatments' toxicity and the consequential harm to themselves or others. For this reason, their manuals carry no instructions to wear gloves or masks, and certainly no injunctions not to touch the taxidermy. Indeed, instead of dwelling upon the dangers attending the use of either arsenic or, as in Waterton's case, mercuric chloride, these publications stressed these toxics' palpable advantages. Therefore, rather than protecting themselves, taxidermists were primarily preoccupied with guarding their specimens from destructive insects. Defending their precious cargo from this menacing scourge was their priority. Little else mattered.

But this is not to say that these naturalists completely ignored the dangers of using arsenic and mercuric chloride. In their writings, there are the occasional moments when, for instance, Swainson expresses a few cautionary remarks concerning arsenical soap. In his chapter *On Preserving zoological subject*s in his *Taxidermy with the Biography of Zoologists*, he warns his readers:

> Great care [...] must be taken in using this [arsenical soap], as well as similar compositions. If the least particle gets between the skin and the nail, and is not immediately removed, it separates both much lower down than their natural limits, creates great pain, and renders fingers very tender. (Swainson, 1840, pp. 28–29)

Moreover, in his *The Naturalist's Guide* (1822), he suggests that boxes holding arsenical soap should be "labelled POISON" (Swainson, 1822, p. 63).

Waterton also expressed some concern. In his *Essays on Natural History* (1996), he advises the reader that a preparation of arsenic is very dangerous – a warning that partially seems to be offered so as to promote his own preference for mercuric chloride. He writes that the use of arsenic is "sometimes attended with lamentable consequence." To support this observation, Waterton recalls a naturalist, by name of Howe, in Cayenne, in French Guiana, who lost sixteen of his teeth: "He kept them in a box, and showed them to me. On opening the lid — 'Them fine teeth,' said he, 'once belonged to my jaws; they are dropped out by my making use of the *savon arsenical* for preserving the skins of animals'" (Edginton, 1996, p. 73).

In spite of a sensitivity to various dangers, however, taxidermists diligently and habitually continued to work with bare hands and spend long hours treating specimens with these toxics. It seems that no pressure was put on them to alter such practices. Notably they were not subjected to the existing legal restrictions in Britain concerning the use of arsenic and mercuric chloride. Consequently, taxidermy was not listed among the "dangerous trades" nor was it included in laws governing factories and workshops that relied heavily on these toxics. It seems that the era's enthusiasm for natural history combined with an eagerness to show off trophies of Empire or the hunt overrode precaution or prohibition. Taxidermists, for instance, were not included within Britain's the Control of Poisons Bill of 1851, the Arsenic Act of 1868, or the 1895 Factory and Workshop Act that required the reporting of industrial diseases caused by lead, arsenic, and phosphorous poisonings.

Significantly, it was not until the 1980s that less toxic alternatives to arsenic and mercurial chloride were actively sought to prevent pests from destroying taxidermy. (Now, I believe, the approved method is to deep freeze the specimen in order to kill off the pests inhabiting its skin and flesh.) And surprisingly, it was not until the mid 1990s that the dangers associated with arsenic and mercury were more fully acknowledged and no longer pushed aside in natural history circles. Perhaps prompted by a more general concern about pesticides, museums started to worry about the toxics within their collections, particularly the arsenic and mercury in their displays of old taxidermy. These anxieties overtook the desire to create stunning displays of exotic specimens. As a result, curators became increasingly anxious about and fearful of traces of these poisons in their showrooms and storerooms. Museums worried lest these toxics effect the health of not only their staff but also visitors viewing the collections. The consensus was that though taxidermied objects offer great educational and historical benefits, proper steps to identify and deal with these poisons were absolutely necessary. As a result, conferences, forums, and professional publications concerning these matters abounded. Through various venues, numerous conversations took place about the appropriate handling, storage and display procedures of specimens known or suspected to contain arsenic. For instance P.L. Miller published an essay with the catchy title *Arsenic, Old Lace, and Stuffed Owls May Be Dangerous to Your Health* (Miller, 1991), and *Indiana Historical Society: Collection Advisor* (2020) devoted an issue to *Taxidermy and Arsenic* (DePauw, 2020) which emphasized the importance of being cautious around taxidermy created prior to 1980. Stressing the necessity of protecting staff and visitors from the amount of arsenic that might become airborne, the author demanded that items be handled very minimally. Other journals addressed the reliability of spot tests for the detection of arsenic and mercury in natural history collections, particularly in displays of old taxidermy. The popular press even reported on the threat. For example, a September 4, 2023 article in the *Texarkana Gazette*, titled *Arsenic risk shuts down taxidermy museum in South Dakota* (Hollingsworth, 2023), informs its readers that because arsenic had been detected in the museum's collection not only was this institution promptly to be closed but also the taxidermy destroyed. CNN picked up on the

story and declared: "More than 130 taxidermied animals in a South Dakota museum were found to contain arsenic. Nobody knows what to do with 130 arsenic-tinged taxidermied animals" (Willingham, 2023). Perhaps NBC News on September 5, 2023 offered the most captivating headline when it proclaimed *'Just don't lick the taxidermy': Fighting over Arsenic found at South Dakota's largest zoo* (Associated Press, 2023). The question of how to dispose of these contaminated objects was problematic. Some curators ordered that the taxidermy be burned on bonfires and others directed that the items be tightly sealed in plastic and clearly labeled as dangerous for human contact.

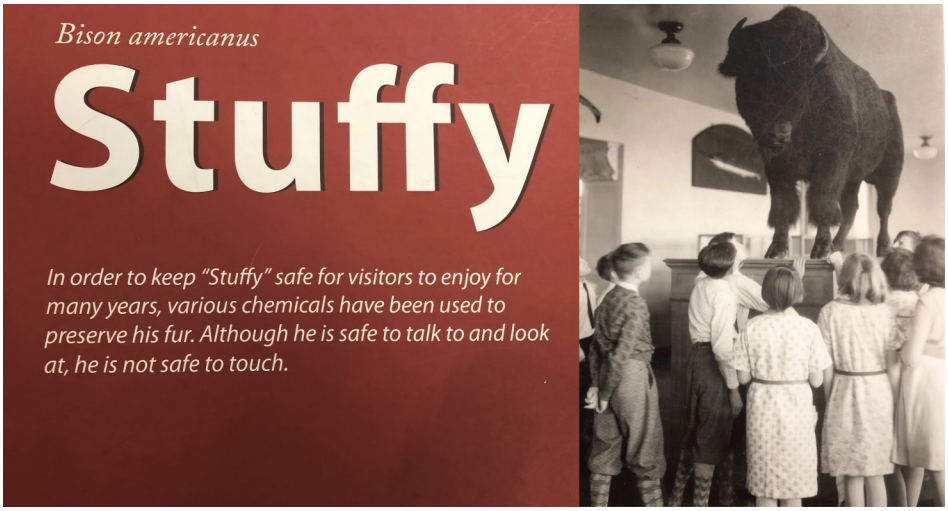
Frequently attached to these articles and presentations addressing the fear of contamination were guidelines about the appropriate handling of taxidermy. What stands out among these instructions is the repeated and stern directive *not to touch* – a warning that was to preface the lecturer's advice to Buffalo State University's Art Conservation students. In a set of guidelines published in 1991, note how many instructions have to do with one's fingers coming into direct contact with the taxidermy:

> 1. Never touch mouth or eyes after handling a museum object.
> 2. Scrub hands thoroughly with soap and brush after touching artifacts. Keep fingernail short.
> 3. Wear gloves when possible, and be careful about what touches expose skin. Some irritant and toxic materials are easily absorbed.
> 4. Keep a lab coat in the museum storage area. Wear it there only, wash it frequently, and do not wash it with other clothing.
> 5. Limit time spent in closed storage areas. Do not use them as workplaces.
> 6. Keep food out of the storage areas, not only to discourage infestation but also to prevent contamination of the food.
> 7. Keep storage and work areas well ventilated. Wear respirator if working with toxic fumes or a particle mask if working with dust.
> 8. Plan ahead. Consider possible hazards. Do not casually open containers, inhale contents, or risk exposure to toxic fumes.
> 9. Never touch your mouth.
> (Miller, 1991, p. 69)

## 5. Consequences and Implications

This recent alarm, if not panic, among museum authorities has altered the ways in which the public is able to relate to the taxidermy on display. What was once desirable is often considered unappealing and undesirable. Recently, while visiting Buffalo's Science Museum, I was reminded of this change when I walked by a mounted large bison affectionately called "Stuffy". Originally, "Stuffy" had been presented to the museum in 1895, a period, as I have discussed, when arsenic and mercuric chloride were liberally applied. Upon his arrival, this impressive animal had stood in full and accessible view until he was eventually moved to Buffalo's once grand (now closed) train station. There, for many years, he stood to greet those arriving at the station. As a result, up until the mid 1940s people traveling to Buffalo were permitted to walk right up to "Stuffy", extend their hands, and, if tall enough, run their fingers through his thick coat of fur. Today, back in the museum that fondling is prohibited. Now, in 2025, the days of touching are over. Currently, this imposing specimen stands almost hidden behind barriers in a remote corner

on the museum's first floor. A prominent sign declares, *Please Do Not Touch*. Significantly, before "Stuffy's" massive body, stands an explanatory poster informing visitors that "although he is safe to talk to and look at, he is not safe to touch."




"Stuffy". Source: Author's photograph.

"Stuffy", of course is not the only example. Generally speaking, in most museums, older taxidermied creatures have either been destroyed or have been enclosed in tightly-sealed plexiglass cases, behind barriers, so that they are well beyond the reach of visitors' inquisitive fingers. There are perceptibly fewer free-standing taxidermy displays than in the past. And those that remain are surrounded by signs announcing *Do Not Touch*. Opportunities to draw close are rare, for many older examples are also kept out of reach in a museum's storage area. If granted permission to walk among them, a person has not only to pay for the privilege but also to attend to the requirement of washing one's hands before and after the visit.

In all fairness, however, in spite of this trend, museums, occasionally still acknowledge a desire to touch and place one's fingers on the genuine article. Among a number of curators, for instance, there is occasionally the sentiment that museums should offer both children and adults something to touch. Honoring this inclination, the Oxford Museum of Natural History has a couple of tables of touchable taxidermy (obviously those that are not toxic). Furthermore, several institutions have set up laboratories or discovery rooms in which visitors may run their fingers through a baleen whale's bristles or stroke animal pelts. And there are institutions, such as the two-room George B. Dorr Museum in Bar Harbor, Maine that prides itself on having a touch tank and small exhibits for children to touch and see.

These opportunities, however, tend to be more the exception than the rule. Instead, museums are now erecting further barriers between the viewing

public and the cases enclosing the taxidermy. These keep visitors even farther from the specimens, and in so doing block or deflect a person's impulse to touch the real thing. As if attempting to compensate for this loss, museums offer some sort of substitute by constructing interactive displays containing information about the taxidermy on display. Visitors are invited to activate this data with their fingers by touching buttons and illuminated squares. But, sadly, rather than satisfying a longing to reach out and actually touch the taxidermied creatures, the act of pressing the button or pushing the square offers only an *illusion* of the desired experience. Instead of satisfying an impulse actually to touch the real thing, these interactive devices, instead, intervene and end up obstructing, redirecting, and even averting the desire, so that rather than focusing on a skin to skin contact or even on the taxidermy itself, the viewer's attention, instead, is directed to the information board. How distant this experience is from that available to the public in earlier times when, as I have already discussed, people drew close as they could to a stuffed exotic creature and reached, sometimes through bars, to run their fingers through a genuine fleece or hide.

When promoting such technology, museums are participating in a world that often mechanically attempts to replicate the experience of touch and invents devices to make this possible. Now, for instance, we can be in Istanbul and by touching a key pad with our finger be simultaneously in contact with a person in Alaska. No skin to skin contact is needed or possible. There's no sensation of actually touching the person; there's only a visual (and perhaps a rather distorted) image of the person's face. And there are other apparatus to make the sensation of touch over distance come to life. One that has recently caught my attention is mentioned in an article, *Touching at a Distance: Digital Intimacies, Haptic Platforms, and Ethical Consent* (Ley and Rambukkana, 2021). In this essay, Madelaine Ley and Nathan Rambukkana describe various forms of digital touch including what they call a Hay Bracelet. Two people, separated from each other, wear this bracelet around their wrists, and when one person slightly squeezes hers, the other person's produces a gentle squeeze allowing him to have a "real" human touch across distance. There is no vibration or buzz for bystanders to see.

Tempted by this virtual environment, some people wanting to touch and be among wild animals purchase virtual reality animal gift sets through which after donning a pair of 3D VR Glasses, they journey alongside elephants, mingle with gorillas, and traverse the "extraordinary world of animals" (see the DR Virtual Reality Animal Gift Set for sale online). When I have watched people participate, I notice that their arms and hands reach out as if trying to touch their surroundings and the animals. But, of course, because what they are seeing is virtual, there is nothing to touch. There is only a longing – a desire that cannot be satisfied. More and more, it seems, the genuine, authentic physical article remains elusive if not dismissed. In this respect, some museums are relying on making their taxidermy collections available via websites or videos, perhaps an advantage to those unable to travel or who desire information quickly, but a means that offers no substitute for actually

touching the genuine article. There is neither a sense of texture nor, obviously, the thrill of being in the actual presence of what is real.

The world cries out for a culture which does not compromise or negate a sense of a genuine presence. Rather than being subject to the virtual that alters, distances, and manipulates the real thing, we need a more immediate access to the genuine article. If we are to connect and care for all that inhabits this world, we need to extend our hands and touch what is before us. Museums can help make this necessity more of a reality or possibility. In this respect, I admire the efforts of a former taxidermist at the Smithsonian Museum of Natural History, Paul Rhymer, who wanted visitors to draw close to a stuffed creature, connect with and care about it. With this principle in mind, Rhymer mounted a gorilla that had died in the Buffalo Zoo in 1999 and arranged her so that she stood at the entrance of the Smithsonian's first floor mammal gallery. "Blanche", as the gorilla was named, was placed so that she seemed to be walking toward the incoming visitor. Furthermore, one of her arms was up, as if she was reaching out to encourage the visitor to touch. As Rhymer explains, "we wanted people to be able to make that connection through the eyes," and most notably "through the hand" (Molinek, 2024).

I sometimes wonder if a museum's interference with, if not obstruction of, the previous centuries' practice of reaching out and laying hands on taxidermy might be *unwittingly* reflecting a moment in history that has become strangely suspicious of touching. Recently, this anxiety seems to surround our lives. One notable example are the teachers, professors, and people of authority, who, fearing retribution, take care not to touch their students or employees. And one cannot forget the phobia accompanying Covid. During the height of the endemic, the directive not to touch one's surroundings or one's friends was compelling and repetitive. As a consequence, during the height of that epidemic, we, like the taxidermy in museums, were figuratively enclosed within cases. Fearing contagion, we looked at each other through glass – on a screen via Zoom – and did not think of extending our bare hands or touching one another. Additional examples of this distrust abound. Indeed, recently, the possibility has uncomfortably crossed my mind that a museum's efforts to shield the public from harm by forbidding them to touch exotic foreign specimens echo and *inadvertently* buttress current xenophobic attitudes that associates an alien presence with corruption, contamination, and disease.

In light of this, perhaps there is more of a need than ever for museums to place more emphasis on the experience of touching and, within reason, revive the exhilaration and knowledge that results from touching the genuine thing. If we are to have a better sense and understanding of the world around us, museums need to bring back more opportunities to reach out and touch a specimen's actual, rather than virtual, presence.

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