



Regular Article

Athens or London? The Parthenon Marbles and economic efficiency[☆]

Jim Leitzel

University of Chicago, United States



A B S T R A C T

In the early part of the 19th century sculptures on the Parthenon in Athens were removed under the direction of the Earl of Elgin, then the British ambassador to the Ottoman Empire, which at the time included Greece. The sculptures were brought to Britain, finding their way to the custody of the British Museum in London in 1816, where they are viewed by millions of visitors annually. A debate long has simmered as to whether these Parthenon Marbles, which date from the 5th century BCE, should be returned to Athens or remain in the United Kingdom. Much of the debate concerns the legitimacy of Elgin's original transfer of the Marbles and, relatedly, their current rightful owner.

This article employs a Law-and-Economics, efficiency-based lens to examine the "property dispute" surrounding the Marbles. The efficiency inquiry centers on what location for the Marbles will do the best job of satisfying human preferences, which depend to a large extent on access to the Marbles and the quality of that access. Coase-like reasoning is applied to the question of the "highest-valued" location of the Marbles, supplemented with behavioral economics concepts involving cultural identity and endowment effects. The article concludes by offering some contours for a potentially Pareto-improving agreement that would result in the reunification of the Parthenon Marbles in Greece.

1. Introduction

The construction of the Parthenon on the Acropolis in Athens, Greece, was completed approximately 2455 years ago, in the 5th century BCE.¹ The Parthenon stands in regal ruins today, though its remaining statuary (in various degrees of deterioration) resides in museums, chiefly the Acropolis Museum in Athens and the British Museum in London. The London-based contingent of the Parthenon Marbles made their way to Britain under the direction of Thomas Bruce, the Earl of Elgin, in the early part of the 19th century. Lord Elgin (as the Scottish nobleman is commonly referred to) was the British ambassador to the Ottoman Empire, which then was in control of Athens.² Elgin's removal and relocation of the Parthenon Marbles, and their extended stay in

Britain, have been and remain controversial acts. In particular, the Greek government has been campaigning for the Parthenon Marbles to be returned to Greece.³ The Acropolis Museum, opened to the public in 2009, contains the Greece-residing subset of the Parthenon statuary, along with plaster casts of the Elgin collection: the Museum stands ready to host a reunification of the Athens and London tranches, replacing those plaster reproductions with the originals.

The dispute over the British possession of the Parthenon Marbles involves many dimensions, some of them focusing on the legal and ethical underpinnings of Elgin's actions.⁴ The comparative quality of Greek and British stewardship of the Parthenon treasures, the risk-mitigating benefits of art dispersal, the quasi-legal implications of more than 200 years of British control of the Elgin collection – these are

[☆] This paper builds upon two sections within Chapter 5 of *Concepts in Law and Economics: A Guide for the Curious* (Oxford University Press, 2015). An early version was presented at The International Atlantic Economic Society conference in Boston, October 2015. I would like to thank Meredith McDonough, Madhavi Venkatesan, and conference participants for valuable comments.

E-mail address: j-leitzel@uchicago.edu.

¹ Beard [(Beard, 2010), p. 42].

² Bruce's official title was "Ambassador Extraordinary and Minister Plenipotentiary of His Britannic Majesty to the Sublime Porte of Selim III, Sultan of Turkey"; see St. Clair [(St. Clair, 1998), p. 1].

³ See, for example, (Smith, 2022). In May 2022, the Greek postal service Hellenic Post issued a series of four stamps, Reunite Parthenon, designed to raise global awareness of the Greek desire for the return of the Parthenon statuary (Martin, 2022).

⁴ The controversy surrounding the Marbles extends to what they are called. The use of Elgin's name – the Elgin Marbles – tends to be associated with a position that the Marbles remain in London. The Act of Parliament (Local and Personal Acts 56 George III c. 99 of 1816) that authorized the purchase of Elgin's statuary (not all of it from the Parthenon or Acropolis) and its turnover to the British Museum required the acquisition to be referred to as "The Elgin Collection" [(5), p. 505]. Earlier in the statute (p. 504) it is recorded that one of Elgin's conditions of sale is that the antiquities be called "The Elgin Marbles." The British Museum Act, 1963, repealed the 1816 Act. The British Museum now employs the term "The Parthenon Sculptures" (The British Museum, 2022a). For a useful discussion of terminology see (Elginism blog, 2009).

some areas of contention surrounding the Parthenon Marbles. Further, universal or encyclopedic museums such as the British Museum collect and display art and artifacts from all over the world, and there is concern that the return of the Marbles to Athens could enhance a precedent that would lead to the decline or extinction of these institutions (Losson, 2021).

This paper surveys the arguments on both sides of the Parthenon Marbles debate. A Law-and-Economics lens is employed to examine the “property dispute” surrounding the Marbles. Coase-like reasoning is applied to the question of the “efficient” or “highest-valued” location of the Marbles, supplemented with behavioral economics concepts involving cultural identity and endowment effects. One feature of the Law-and-Economics approach is that appeals to oft-contentious concepts such as justice, fairness, and even legitimate ownership rights play at most a secondary role: the efficiency query centers on what location for the Marbles will do the best job of satisfying human preferences.⁵ This paper argues that Athens possesses a strong claim to being the “efficient” location for the Marbles, and concludes by offering some contours of a potentially Pareto-improving agreement that would result in the reunification of nearly all of the extant Parthenon statuary at the Acropolis Museum in Athens.

2. A capsule history of the Marbles

The approximately 15-year construction of the Parthenon began in 447 BCE, in the wake of the Persian sack of Athens in 480 BCE – a sack which included the destruction of previous structures, including a far-from-complete temple to Athena, on the Acropolis.⁶ The artistic elements of the new building were overseen by the eminent artist Phidias.⁷ A large statue of Athena crafted by Phidias was one of the glories of the early Parthenon; the statue, located inside an interior chamber of the Parthenon, has long been lost.⁸ Much of the original exterior statuary also is no longer extant or suffers severely from the depredations of time, which in the case of the Parthenon includes intentional religion-motivated breakage and wartime destruction.⁹

The Parthenon, regarded by many as the pinnacle of classical architecture, is a rectangular building (approximately 228 feet by 101 feet) consisting of two separate but adjacent rooms (the *naos* or *cella*) enveloped by 46 outer Doric columns (about 34 feet high) and a second

inner row of six columns on each of the short sides of the rectangle.¹⁰ The Parthenon is a “peripteral octastyle” temple, where “peripteral” refers to the fact that it is surrounded by columns and hence possesses a colonnade, and “octastyle” indicates that there are eight columns on the short sides of the building. Three sculptural elements of the Parthenon form the basis of the Elgin Marbles.¹¹ On the entablature above the outer columns was a series of 92 *metopes*, large sculptures (nearly four feet high and, on average, slightly wider than high) in high relief depicting various themes, including a battle involving centaurs and a war between the Olympian deities and giants.¹² The Elgin collection holds fifteen metope panels, out of a total of 58 that are extant; many of the slabs not in the British Museum have had the sculpting destroyed.¹³ Around the top of the exterior of the sides of the inner chambers (the *naos*) and the inner colonnade was a frieze, about three feet three inches high and sculpted in light relief, that depicts an ancient Athenian procession.¹⁴ The British Museum displays nearly one-half (about 247 feet) of the original frieze (about 524 feet).¹⁵ Above the entablature on each of the Parthenon’s narrow ends is a triangular area known as a pediment. These triangles contained a group of in-the-round statues with more than “life-size” figures of gods and animals, some 48 in number, depicting scenes connected to Athena. Most of the pediment statues no longer exist, but of those that survive, the majority (17 figures) are in the British Museum.¹⁶ The surviving statues are quite decayed and fragmentary, though still exquisite. All of the extant Marbles – approximately half of the original collection of metopes, frieze panels, and pediment sculptures – have been removed from the Parthenon and now reside in museums, including small collections in the Louvre and the Vatican museums (The British Museum, 2022a).

⁵ The subsidiary role for “justice” or “fairness” or “rights” is a standard element of Law and Economics-style analyses; see Leitzel [(Leitzel, 2015), pp. xvi–xvii].

⁶ This capsule history draws upon (Cook, 1997), (Beard, 2010), and (Browning and Hitchens, 2008). Athenian years started with the summer solstice, so the more precise dating of the Parthenon construction is 447/446 BCE to 433/432 BCE [(Beard, 2010), p. 42].

⁷ A common alternative transliteration is “Pheidias.” The remarkable architecture of the Parthenon generally is attributed to the architects Iktinos and Kallikrates [(Barletta and Neils, 2005), p. 88]. Phidias probably was responsible for the overall sculptural elements, but his role in actually sculpting the frieze or the metopes is unknown [(Neils and Neils, 2005), p. 219].

⁸ The height of Phidias’s statue of Athena is given as 33 feet by Woodford [(Woodford, 1981), p. 39], though estimates of 38–40 feet in height also are common (Encyclopedia Britannica, 2022).

⁹ The Epilogue of Vlassopoulou [(Vlassopoulou et al., 2016), pp. 35–51] details the 2016 location of the statuary, and the missing elements; this source updates Appendix 1 in Hitchens (Hitchens, 2008).

¹⁰ The dimensions of the Parthenon refer to the stylobate on which it rests; see [(Woodford, 1981), p. 17]. The inner chamber of a Greek temple is *naos* in Greek and *cella* in Latin.

¹¹ See the Appendix for an illustration of the original locations of the three statuary elements.

¹² On the Parthenon’s metopes, see [(Cook, 1997), pp. 22–32] and [18, pp. 40–41; 68–81]. Interspersed between the metopes were decorative elements called triglyphs.

¹³ See Appendix 1 in Hitchens (Hitchens, 2008) and [(Cook, 1997), pp. 22–23].

¹⁴ The height of the frieze is drawn from [(Woodford, 1981), p. 31]. The continuous frieze is an unusual (but not unique) Ionic element in the largely Doric Parthenon [(Servi, 2011), p. 54] and (Senseney, 2021). Athens hosted a festival every year – the Panathenaia – that included a procession similar to that depicted on the Parthenon frieze, culminating in the delivery of a new garment (*peplos*) for a revered statue of Athena located elsewhere on the Acropolis. Once every four years, an expanded version of the Panathenaia was held (called the Greater Panathenaia), which included a second, much larger, *peplos*; see Connelly [(Connelly, 2014), pp. 252, 274–275]. The Parthenon’s frieze generally is thought to depict the procession accompanying a Panathenaia, and the central block of the frieze contains an image that seems to show the delivery of the new garment; see, for example, [(Neils and Neils, 2005), p. 204]. An alternative (and darker) understanding of the subject of the frieze is developed in [(Connelly, 2014), pp. 274–277].

¹⁵ (British Museum blog, 2018). A small contingent of the British Museum’s holdings of Parthenon materials are not part of the Elgin collection.

¹⁶ [(Servi, 2011), p. 52] and [(Jenkins, 2007), pp. 35–39]. The fact that the pediment sculptures are in-the-round is curious in that, once placed on the Parthenon, only the front of the sculptures were visible.

3. Some elements of contention

3.1. Did Elgin have permission from the Ottomans to remove and export the Marbles?

Lord Elgin claimed to have received legal permission from the acting Grand Vizier in Constantinople to remove stones from the Acropolis; the permission supposedly took the form of an Ottoman-language *firman*. By the time of an 1816 British Parliamentary Select Committee inquiry into the propriety of Elgin's actions, any such manuscript was lost, but what is reputed to be a translation into Italian of the original firman exists, and an English translation of this still-extant document was part of the Select Committee record.¹⁷ This presumed firman does indicate permission to remove some stones from the Acropolis, though the text suggests an intent to sanction only the removal of loose stones on the ground. Elgin's workers constructed scaffolding and extricated metopes, frieze segments, and pediment sculptures directly from the building. The operation was a laborious, forceful enterprise, one that inflicted significant damage to the Parthenon and to the statuary.¹⁸ Nor was any firman that might have been issued itself deemed sufficient for Elgin's agents to proceed in unmolested fashion: many bribes were paid to officials in Athens and in Constantinople to smooth Elgin's path [(Rudenstine, 2021), p. 398].

It is quite possible, even likely, that the original document itself was not an official firman from the Sultan or from the acting Grand Vizier (rather, "an unofficial letter of goodwill," as described by Korka [(Korka et al., 2016), p. 53]: the Italian-language document contains some puzzling features (such as the lack of a date, signature, and signet) that suggest that it is not a direct translation of an Ottoman-language firman [(Rudenstine, 2001), pp. 1880–1883], [(Rudenstine, 2021), pp. 432–435].¹⁹ Further, the English version published by the Parliamentary Select Committee is a less-than-fully accurate rendering of the (presumed) Italian predecessor, and the discrepancies lend a more official air to the English-language version.²⁰

Observers on both sides of the debate concerning the rightful current location of the Parthenon Marbles have tended to come to similar

¹⁷ Whether or not the Italian-language document was available to the Select Committee is unclear [(Rudenstine, 2001), pp. 1863–1864]; and [(Rudenstine, 2021), pp. 435–436]. The firman issues are further complicated by an apparent prior authorization from the Sublime Porte, but one that did not suit Elgin's purposes: [(Janžekovič, 2016), pp. 60–61].

¹⁸ The removal of the frieze was particularly harmful to the Parthenon structure, as the blocks on which the frieze reliefs were carved are major elements of the building's architecture. The blocks are massive, so to ease removal and transport, Elgin's agents separated (chiseled or sawed) slabs including the sculpture (about 10% of the block) from the rest of the block. Crown blocks above the frieze and wall beams were felled in the process of procuring the frieze (Manidaki et al., 2016). The removal of the metopes also resulted in the destruction of some of the triglyphs that filled the space between the metopes; see, for example [(Boardman, 2000), p. 240], and [(Woodford, 1981), pp. 45–46].

¹⁹ The prominence of the Parthenon – an ancient, famous religious building located in an active military compound – makes it likely that a firman from the Sultan (as opposed to the Grand Vizier) would be needed to sanction Elgin's action, and no such firman was issued; see footnote 339 in [(Rudenstine, 2021), pp. 421–422].

²⁰ [(Rudenstine, 2001), pp. 1873–1874] and [(Rudenstine, 2021), pp. 443–436]. The Italian text and an English-language translation appear in [(St. Clair, 1998), pp. 338–341]. The Sublime Porte did issue a firman to a later British Ambassador in 1810 allowing for the export of some of the antiquities that Elgin had acquired, though by then, many of the Parthenon Marbles already were in Britain, and it is not clear that the precise contents of the remaining crates were known by the Ottoman authorities; [(Rudenstine, 2021), pp. 452–459]. The logistics of transporting Elgin's vast collection were complex; Smith [(Smith, 1916), pp. 292–294] compiles a record of the known shipments.

conclusions about Elgin's behavior: the existing record cannot support, at least with high confidence, the notion that the large-scale removal of statuary from the Parthenon came with the official blessing of the Ottoman authorities.²¹ Rudenstine [(Rudenstine, 2021), p. 382], drawing on an intensive analysis of the historical record, is particularly emphatic: "there is no evidence to support the position that the Constantinople Ottoman officials gave Lord Elgin prior written permission to dismantle the Parthenon of its historic sculptures."²²

3.2. Did the Ottomans have standing to alienate the Marbles and was any agreement uncoerced?

The Ottoman Empire, headquartered in Constantinople, took control of Athens in the 1450s (when the Parthenon already was some 1900 years old), finally relinquishing the Acropolis in 1833 [(Waterfield, 2004), pp. 281 and 304]. Under their rule, the Parthenon – which became a "ruin" when it exploded in a battle (it was being used as an ammunition store) in 1687 – had been converted into a mosque. (This was not the first religious transformation of the building: the one-time temple to Athena served as a Christian cathedral for about 900 years, beginning in the late 6th century.²³) So the Ottomans were temporary overseers who lacked the same connection with the Acropolis and the Parthenon that many Greeks and Athenians possessed (and still possess). Nonetheless, the Ottoman occupiers were, by the usual standards, the "legitimate" rulers of Athens at the time of the transfer of the Elgin Marbles. Under today's prevailing international law, occupying forces must respect cultural property, but this injunction was far from an established global principle in the early 19th Century.²⁴

The potentially coercive element of the transfer of the Marbles draws from British military dominance. Britain had helped to secure that dominance by defeating the French at the Battle of the Nile in 1798 and more broadly in Egypt in 1801 – a defeat which served the interest of the Ottomans, who (at least nominally) controlled Egypt at the time and declared war against Napoleon following the Battle of the Nile.²⁵ Elgin's status as the representative of Great Britain to the Sublime Porte renders any "private" request that he made to be potentially coercive, as if your boss asked you to contribute to her daughter's birthday gift – and if your boss possessed extensive military might which had recently been deployed to great effect in your interests. (Elgin insisted on the private nature of his request, while also admitting that his appeals to the

²¹ See note 14 in [(Rudenstine, 2001), p. 1856]. A partial exception to this consensus is Herman [(Herman, 2021), Location No. 252].

²² Footnote in (Rudenstine, 2021) omitted. Not only is it unlikely that Elgin had Ottoman permission to remove statuary from the Parthenon, he probably did not seek such permission, and expressed surprise when informed of what his Athens-based agents had accomplished [(Rudenstine, 2021), pp. 447–449].

²³ See, e.g., [(Beard, 2010), pp. 49–68]. Strictly speaking, the Parthenon, while an homage to Athena and her namesake city, was probably not a temple that hosted religious rites [(Beard, 2010), p. 45].

²⁴ (UNESCO, 1954) and [(Greenfield, 2007), p. 82]. The ongoing British possession of the Elgin collection might constitute a current violation of international law: "International law is evolving towards a position which recognizes, as part of the sovereignty of a state, its right to reclaim unique cultural property of great historical significance which was wrongfully taken in the past [(Robertson, 2019), p. 29]."

²⁵ [(St. Clair, 1998), pp. 12–16]. The victorious commander at the Battle of the Nile, Horatio Nelson, later played a second role in the Elgin collection, acceding to Elgin's request in 1805 to arrange sea transport of some of Elgin's Greek antiquities to England [(Kourkoumelis et al., 2016), p. 83]. Presumably the Ottomans were interested in regaining control of Egypt (and not simply having such control shifted from the French to the British), so they had a strong motive for keeping on the good side of the British [(Rudenstine, 2021), p. 380].

Ottoman authorities were viewed much more favorably after the military successes of 1801.²⁶) Note that even if the Sultan or the acting Grand Vizier did not feel particularly coerced, the administrators on the ground in Athens might have been hard pressed to make a stand against any overreaching by Elgin's agents.

3.3. Was Elgin's behavior necessary to safeguard the Marbles?

Lord Elgin himself raised this defense, indicating that the alternative to his actions was eventual destruction of the Marbles in Athens or seizure by another collector [([Report from the Select Committee, 1816](#)), pp. 40–41].²⁷ Components of the frieze that are part of the Elgin collection do appear to be better preserved than those that remained on the Parthenon in Athens [([Boardman, 2000](#)), pp. 253–255]. Nonetheless, if protection of the Marbles were the main issue, there would seem to have been different steps that could just have easily been taken – including steps to secure the Parthenon's statuary in situ [([Rudenstine, 2021](#)), p. 413]. It is doubtful that, if there were a committed museum director who "owned" the Acropolis at the beginning of the nineteenth century, and that director considered preservation of the statues to be the highest priority, that such an owner would have thought that the best answer for preservation would be to hack the statues off of the building and to send them on a dangerous land and sea journey. (Indeed, one of the ships transporting Elgin's acquisitions sunk, leading to a successful two-year salvage operation.²⁸)

Whether or not safeguarding the Parthenon statuary was the motive for Elgin's actions, it nonetheless might have been the effect of their export. Two hundred years inside the British Museum have been easier on the Marbles than many another imagined past, and were certainly easier than the previous 200 years had been when the Marbles were still attached to the Parthenon.²⁹ Even the few decades leading up to Elgin's transfer of the Marbles involved, in some instances, very severe amounts of destruction and deterioration, as attested to by comparisons of pre-existing casts and drawings with the Elgin collection [([Jenkins, 2007](#)), pp. 29–31] and [([Boardman, 2000](#)), pp. 238–239].

²⁶ See Elgin's testimony as recorded in [([Report from the Select Committee, 1816](#)), pp. 33–34; 48–50]. The very well-informed Earl of Aberdeen thought that Elgin's official position was instrumental in securing permission for his work in Athens [([Report from the Select Committee, 1816](#)), p. 122]. The Select Committee that examined Elgin's behavior did not contradict the Lord's claim that in his mind his collection was a private matter; nonetheless, it noted that the Earl of Aberdeen was probably correct in his assessment, and highlighted [([Report from the Select Committee, 1816](#)), p. 8] the importance of British military prowess: "The success of the British arms in Egypt, and the expected restitution of that province to the Porte, wrought a wonderful and instantaneous change in the disposition of all ranks and descriptions of [Turkish] people towards our Nation. Universal benevolence and good-will appeared to take place of suspicion and aversion. Nothing was refused wick [sic] was asked; and Lord Elgin, availing himself of this favorable and unexpected alteration, obtained, in the summer of 1801, access to the Acropolis for general purposes, with permission to draw, model, and remove; to which was added, a special licence to excavate in a particular place."

²⁷ Many British people were concerned that the French, in particular, were poised to acquire the Marbles had Elgin and/or Parliament not acted; see [36, pp. 121, 124 and appendix, p. iii] and [([McClellan, 2008](#)), p. 249].

²⁸ See, for example [([Hitchens, 2008](#)), p. 37], and ([Kourkoumelis et al., 2016](#)). The site of the shipwreck has been explored regularly in recent years, yielding coins, chess pieces, elements of rigging, and so on ([Wichmann, 2021](#)).

²⁹ An extensive set of drawings of the Parthenon statuary made in 1674 – prior to the 1687 explosion – provides a good record of the major losses and significant deterioration that has been suffered since that time [([Jenkins, 2007](#)), p. 26]. The drawings were made under the direction of Charles François Olier, the Marquis de Nointel and then the French Ambassador to the Sublime Porte. The drawings are often attributed to Jacques Carrey but the evidence now seems to suggest that they were made by Arnould de Vuez ([De Rycke, 2007](#)).

3.4. Have the British been faithful stewards of the Marbles? Have the Greeks been faithful stewards of the Parthenon and its statuary?

The Marbles in Britain have been fairly well looked after, to my mind, but that is not to say that they have been perfectly preserved. Attempts at cleaning over the years at times (especially in the late 1930s) have been wrong-headed – inspired, it seems, in some instances by the incorrect notion that the Marbles in a pristine state should be gleaming white – with the result that some stones have been subjected to permanent damage.³⁰ The Elgin Marbles were moved to safety (some to a vault in the museum, some to a nearby tube station) during World War II, in what proved to be a fortuitous precaution, as the gallery previously holding the Marbles was badly damaged by a German bomb [([Cook, 1997](#)), p. 92].

The Parthenon statuary that remained in Greece but was moved inside and cleaned in the 19th Century seems indistinguishable in terms of deterioration from the Elgin collection [([Boardman, 2000](#)), pp. 243, 252]. But statuary that remained outside through much of the 20th Century suffered from the significant air pollution in Athens – a problem that eventually resulted in removing all of the remaining original statuary to an indoor setting. Once again, plaster casts from the 18th and 19th centuries provide strong evidence for significant harms suffered by the Marbles exposed to the Athenian atmosphere in the post-Elgin era, including in the second half of the 20th Century [([Boardman, 2000](#)), pp. 243, 247, 252–254]. Neither the Greeks nor the British should be wholly satisfied with their care of the Parthenon treasures over the last two hundred and twenty years, but the British stewardship over the Elgin collection nonetheless generally seems to have met a high standard [([Boardman, 2000](#)), p. 254].

3.5. Does 200 Years of British possession itself establish legal or ethical title?

In many areas of the law, the passage of time can alter property rights. Statutes of limitations, for instance, prevent legal proceedings from being initiated after a definite number of years have passed following the alleged offense. Adverse possession rules allow legal title to vest in an erstwhile trespasser who has openly held possession (without intervention by the owner) of a piece of property for some specified period of time, such as ten years. So, two centuries of British possession of the Marbles do seem to contribute to the potential for Britain to hold a valid legal title – though valid according to what set of laws remains an issue.

The argument from long practice, however, is not fully dispositive in national or international law. Statutes of limitations and adverse possession rules preclude new legal challenges to a long-term de facto ownership situation, but challenges to the British rights to the Marbles are not new. Greek clamor for return of the Parthenon treasures began shortly after Greece's independence was achieved and sustained in the early 1830s, and well prior to that, Elgin's behavior had prominent detractors, including, perhaps most notably, Lord Byron.³¹ That is, the only sort of challenge that Greece and its supporters could realistically muster to British control of the Marbles was raised in a timely fashion.

International law has developed extensively since the early 1800s, and Greece might be able to win a court ruling calling for the British Museum to send the Elgin collection to Athens ([Robertson, 2019](#)). Nonetheless, the Greek government has not elected to pursue legal

³⁰ On the extent of the damage that resulted from the 1930s cleaning, compare ([Clair, 1999](#)) with ([Boardman, 2000](#)) and ([Jenkins, 2001](#)).

³¹ Much of Byron's anti-Elgin vitriol appears in a poem, "The Curse of Minerva," composed in 1811; see ([Byron, 1820](#)) for an 1820 version.

proceedings aimed at the return of the Marbles [(Robertson, 2019), pp. xxi-xxiii].³² Greece has requested that the United Nations Educational, Scientific and Cultural Organization (UNESCO) lend its good offices to a non-binding mediation between Greece and Britain concerning the Parthenon Marbles, and UNESCO has acceded to that request. Britain rejected the mediation offer in 2015, though the issue remained active within UNESCO (BBC News, 2015), (Chrysopoulos, 2018). The long-standing impasse that precluded official discussions seemingly was overcome in May 2022, when UNESCO announced that the Greek and UK governments had agreed to a meeting to discuss the Marbles, to take place between the Greek Minister of Culture and the British Minister of the Department for Digital, Culture, Media and Sport.³³

3.6. Would return of the Elgin Marbles hold precedential value, and if so, of what nature?

Great universal museums such as the Louvre and the British Museum are full of art and antiquities emanating from diverse corners of the globe. Many of these objects were essentially looted in the course of wars or colonial dominance, or at some point in their long histories were transferred in a less-than-equitable fashion. “Simply put, national vanity, greed, and expansionism in the nineteenth and early twentieth centuries lie behind the collecting activity of Europe’s oldest and greatest museums [(McClellan, 2008), p. 247].” Nor have the collections in US museums been free of questionable acquisitions (Waxman, 2008).

When there is compelling evidence of recent theft, then the case for returning the objects or recompensing the victims or their heirs is strong: this position seems to enjoy an international consensus (O’Connell et al., 2007). Many pieces of art purloined by the Nazis, for instance, have been returned. A 1970 international convention arranged under UNESCO auspices (UNESCO, 1970) attempts to prevent the illicit trade in cultural artifacts, and to promote restitution when looted works are uncovered. The convention’s call for return only applies to cultural objects that were illegally exported after the Convention went into effect for the state parties involved – so pre-1970 illicit transfers do not fall within the scope of this multinational agreement.³⁴

The principle that looted art should be returned to its place of origin or theft has taken effect beyond those cases to which it applies as a matter of law, and also beyond the Nazi depredations. In the US, the Getty Museum, New York’s Metropolitan Museum of Art, and the Boston Museum of Fine Arts are among leading cultural institutions that have returned dozens of items (Grant, 2014).³⁵ In June 2022, Italy opened The Museum of Rescued Art in Rome, dedicated to the display of repatriated cultural objects (Abrams, 2022).

Repatriation of cultural property itself draws upon a lengthy heritage, including the Duke of Wellington’s decision to return to Italy (and elsewhere) many of the treasures that Napoleon had appropriated as his empire expanded [(Herman, 2021), Loc. No. 127–155]. The British

³² There are some British legal roadblocks to any restitution action taken by the Trustees of the British Museum, but they can be overridden by Parliament (Godwin, 2020). An independent group in Greece, the Athenians’ Association, did attempt to sue for return of the Marbles in the European Court for Human Rights, but the Court found the group’s application to be inadmissible (Johnston, 2016).

³³ (UNESCO, 2022). The UNESCO logo, incidentally, itself contains a stylized Greek temple.

³⁴ [50, Article 7(b)(ii)]. Further, only works that were illegally removed from museums, public or religious monuments, or similar institutions fall within the ambit of the Convention; thus, illegal excavations or thefts from private owners also are not covered by the UNESCO rules.

³⁵ The ArThemis database (ArThemis database, 2022) provides a useful compilation of cases concerning repatriation of art; among the more than 150 cases are surprising entries concerning entertainment celebrities Elizabeth Taylor and Boy George.

double standard was not lost on William Hazlitt, writing in the 1820s [(Hazlitt, 1903), p. 186n]: “It were to be wished that the French sculptors would come over and look at the Elgin Marbles, as they are arranged with great care and some pomp in the British Museum. They may smile to see that we are willing to remove works of art from their original places of abode, though we will not allow others to do so.”³⁶

The issue of return or recompense for stolen artwork is complicated by the possibility that the current holder of the art might have been a good faith purchaser, having no reason to suspect that the art had been looted. (The 1970 UNESCO Convention [50, Article 7(b)(ii)] calls for just compensation to be made to innocent buyers of what turn out to be stolen and then repatriated goods.) Further, the modern governments of some source areas for art and antiquities are not themselves without resources in cultural property disputes – and their resources go beyond legal or moral claims. Such governments or their cultural institutions often are involved in myriad long-term, international cooperative projects for archeology or preservation or curation. Many major art exhibitions in the US, for instance, depend upon extensive loans of art from foreign countries. A determined government could threaten to scuttle such long-term projects if their demands for restoration of some cultural artifacts were not met [(Lyons, 2014), p. 245].

Though the norm that recently stolen artifacts should be returned is widely shared, as the evidence of theft diminishes, or as the time since the illicit transfer took place increases (and these dynamics tend to travel together), the proper “rule” is less obvious. Consider the case of the Horses of St. Mark’s Basilica in Venice. These classical high-purity copper statues of four horses were seized and taken to Paris by Napoleon, and then returned to Venice under Wellington’s policy.³⁷ (Like the Parthenon statuary, the original pieces now have been moved inside; the horses visible above the entrance to the Basilica are a replica.) But why are they in Venice? The Horses were moved there as military booty following the sack of Constantinople in the early part of the 13th century. And why were the statues in Constantinople, given that many experts date the creation of the Horses to centuries before the dedication of Constantinople in 330 CE? Perhaps the Emperor Constantine moved them to Constantinople (from where?), or perhaps they already existed in Byzantium, Constantinople’s predecessor. In any event, the Venetian acquisition of the Horses is, at least by modern standards, much less legitimate than Elgin’s relocation of the Parthenon Marbles, but the Horses of St. Mark’s are not subject to a similar pressure for return. Presumably time has done its work in washing the taint off of the Venetian acquisition, while also making it hard to point to a sympathetic former “owner.”

The return of the Elgin collection might contribute to a growing norm that looted objects should be repatriated, but of course, many cultural objects, including the Horses of St. Mark’s, acquired through equally (or more) doubtful means continue to reside in museums or private collections around the world. The Getty and the other museums that have returned significant numbers of items remain world-class, too – they have not been denuded by the transfer of disputed elements of their collection. Further, legal precedents can be quite expansive or they can be quite narrow – if the return of the *sui generis* Elgin Marbles can be part of a broad, detailed agreement, then perhaps any potential

³⁶ The double standard applied at a personal level, too, in that William Hamilton, who helped establish the British position for the return of Napoleon’s loot as the British Under Secretary of State for Foreign Affairs, had served as Elgin’s private secretary during the Constantinople years and had lobbied for the British government to purchase the Elgin collection; later, Hamilton was a Trustee of the British Museum [(Saltzman, 2021), pp. 213–216]; and [(Smith, 1916), p. 168].

³⁷ This discussion of the Horses of St. Mark’s draws upon (Freeman, 2010) and [(Saltzman, 2021), pp. 30, 140–141, 207, 217].

precedential effect can be as limited as earlier cases of repatriation have been so far.³⁸ And of course, if the precedent for return of looted antiquities were to take on greater force, that policy impetus might be for the best, might contribute to overall global wellbeing.³⁹ Supporters of the return of the Elgin Marbles to Greece, for instance, were heartened by a recent “precedent,” the January 2022 repatriation of a fragment of the Parthenon frieze that had been in a museum in Sicily for many years ([Italy returns Parthenon marble fragment, 2022](#)).

4. A Law and Economics perspective on the Elgin Marbles

The contention over whether Britain or Greece is the rightful “owner” of the Elgin Marbles has legal, historical, and ethical dimensions. What the contention lacks is a universally accepted winner.

Law and Economics has little to offer on the question of the identity of the rightful owner. What Law and Economics is well-suited to analyze, however, is the question of what location for the Marbles does the best job of satisfying human preferences, what location is “optimal” or “efficient.” The prime element of human benefit from the Parthenon Marbles derives from accessibility of the statuary to viewers and to researchers, and from the quality of that accessibility. Accessibility itself depends, among other factors, on the safekeeping and care of the Marbles.⁴⁰

Notice that most of the common “elements of contention” discussed in Section 3 have no direct bearing on determining the optimal location of the Marbles. The propriety of the actions of Lord Elgin or the Ottomans or the Greeks or the British Museum decades ago does not matter for assessments of efficiency, which are forward looking.⁴¹ Recent care of the Marbles in London or Athens probably serves as a reliable signal of future care, so that specific dimension of the ownership argument presents an indirect influence on the efficiency of alternative sites. Further, the precedent for other artifacts and museums that might be created by the disposition of the Parthenon Marbles is explicitly future-oriented, and hence germane for efficiency analyses. But the issues that surround the question of what country is the rightful owner of the Marbles are generally not relevant for assessing the economic efficiency of different locations.

This lack of relevance of the ownership controversy reflects Coase Theorem-style reasoning that the “optimal” location of the Elgin Marbles is independent of the identity of the lawful owner ([Coase, 1960](#)). Such independence does not require that transaction costs and relocation costs be zero, as long as those costs are identical for any owner.⁴² Transaction and relocation costs make it more onerous to move the Marbles, and hence raise the likelihood that there is an efficiency

rationale for maintaining the status quo – but the potency of that rationale is the same no matter who is the legitimate owner. Imagine, then, that the ownership question is resolved, that the rightful owner is clear: perhaps it is the United Nations or the Planetary Federation or Elon Musk. There remains the question of where that rightful owner should place the Marbles.⁴³ Which location – Athens or London or potentially somewhere else – brings the greatest net benefits, that is, maximizes economic efficiency?⁴⁴

Consider the surplus enjoyed by (current and future) visitors to the Marbles. This element of value indicates that an extremely remote location, one that by-and-large would be out of reach for visitors, would not be optimal, since a major benefit of the Marbles lies in opportunities to view them and the worth of those views. A conveniently located private owner (or even a public museum) that imposed severe access restrictions similarly would be “inefficient.” Both the British Museum and the Acropolis Museum are popular with tourists, though the British Museum (which has no admission charge) sees nearly 5 times as many visitors annually as does the Acropolis Museum (where admission generally costs five euro in the winter and ten euro in the summer): for the 2019/2020 year, there were approximately 1.28 million visitors to the Acropolis Museum, while about 5.9 million people visited the British Museum.⁴⁵ (Not every visitor to the British Museum views the Elgin collection – perhaps not even half of the clientele find their way to the Parthenon stones – but official attendance figures specific to the Marbles do not seem to be available⁴⁶; I imagine that almost all visitors to the Acropolis Museum visit the floor devoted to the display of the Parthenon

⁴³ Frey ([Frey, 2013](#)) offers a complementary analysis that focuses on the significant costs of devoting resources to attempting to determine the identity of legitimate owners in some cultural property cases, and emphasizes the benefits of encouraging high-quality copies, digitization, and loans of important works of art.

⁴⁴ In Law and Economics, the usual measure of economic efficiency is the Kaldor-Hicks standard. See, for example, ([Legal Theory Lexicon, 2009](#)), and for a more technical exposition, [[Boadway & Bruce, 1984](#)], pp. 96–99].

⁴⁵ On attendance at the Acropolis Museum, see the Highlights Report ([Acropolis Museum, 2019](#)). The report indicates that for individual (not a part of an organized tour or school group) visitors, a plurality of 20% were Greek, marginally more than the 19% of visitors who came from the US. For the British Museum attendance figures, see Table 1 in ([Department for Digital, 2019](#)); this source also indicates (Table 4) that about 36% of visitors to the British Museum in 2019/20 were from the UK. The population of the UK is nearly six times that of Greece (calculated from ([Total Population by Country 2022, 2022](#))), while the population of London is more than three times the population of Athens (calculated from ([World City Populations 2022, 2022](#))). For the admission fees to the Acropolis Museum, see ([Acropolis Museum, 2022](#)). The Highlights Report [[Acropolis Museum, 2019](#)], p. 7] indicates that nearly a third of Acropolis Museum visitors receive free admission, while a further 8% receive a reduced admission fee. The coronavirus began to affect admission numbers in both museums in the beginning of the year 2000, and temporarily closed the museums in March of 2020. The comparative popularity of the museums, however, for 2019/2020, was in line with previous, non-Covid years. The Acropolis Museum figures were more affected, because they cover the time period through May of 2020, whereas the British figures are through April 2020, and thus reflect one less Covid-impacted month.

⁴⁶ See [[Beresford, 2014](#)], n. 6] and [[Robertson, 2019](#)], p. 119]. When I have asked people who have visited the British Museum if they have seen the Parthenon Marbles displayed there, many are uncertain.

³⁸ ([Losson, 2021](#)) argues that restitution of cultural property represents an opportunity, not an existential threat, to Western museums.

³⁹ A general rule for repatriation would hold some significant downsides ([Cuno, 2014](#)).

⁴⁰ This approach to the net benefits of cultural property is consistent with the triad developed in Merryman [[Merryman, 1989](#)], p. 355], of “Preservation, Truth, and Access.”

⁴¹ The standard economic case for voluntary exchange is that such an exchange is mutually beneficial and, in the absence of third-party effects, represents a Pareto improvement over the status quo. But that standard association between trade and efficiency does not apply to the “exchange” between the Ottomans and Elgin – many “third parties” felt (and feel) harmed by that exchange, even if it were uncoerced and acceptable to the parties directly involved.

⁴² This Coasean independence-style proposition also requires that there be no income effects, so that rightful ownership itself does not alter the marginal valuation that individuals place on the Marbles. Incidentally, relocation costs are not insignificant, but they are not prohibitive, either. One of the pediment Marbles was loaned by the British Museum to the State Hermitage Museum in St. Petersburg, Russia, in December 2014, to help celebrate the Hermitage’s 250th anniversary ([British Museum and the State, 2014](#)).

treasures.⁴⁷) These figures could change, of course, were the Elgin collection to move to the Acropolis Museum. Nonetheless, the large disparity in attendance certainly offers an efficiency rationale for keeping the Marbles in London. Again, this argument is not dispositive: Athens is only 1500 miles or so from London, and generally is as accessible to travelers. And if the total number of visitors were to be the chief determination of a location's value, we should keep in mind that some 60 percent of the world's population resides in Asia ([Continent and Region Populations 2022, 2022, 2022](#)).

The value of seeing the Marbles depends not just on how often they are seen but also on the conditions under which they are viewed.⁴⁸ It is along this dimension that the case for Athens as the home for the sculptures is perhaps strongest. The top floor (third floor) of the Acropolis Museum is devoted to art from the Parthenon; the floor axis is shifted relative to the rest of the building so that its orientation matches that of the Parthenon itself, which is visible from the Museum. The display area of the top floor also matches the Parthenon in terms of its dimensions. The art is placed in a manner that parallels its original placement on the Parthenon. (One difference is that the sculptures are not positioned forty feet above visitors' heads, unlike at the Periclean Parthenon itself!)

In the British Museum in Bloomsbury, the Parthenon Marbles inhabit a dedicated hall, the Duveen Gallery, where they have been housed since 1962.⁴⁹ Along the walls of the main section of the gallery are the frieze slabs, while smaller areas at each end of the main section contain the metopes and the pediment sculptures. I find the display in London to be satisfying, though perhaps a bit sterile.

It seems likely that for most viewers, Athens provides a superior setting (with the Acropolis and the Parthenon visible in the near background) and a superior orientation of the art (by matching the Parthenon's own orientation), relative to the British Museum. The orientation issue is particularly clear with respect to the frieze. The frieze on the Parthenon faced outward from the top of the inner rooms, and this outward-facing placement is replicated in the Acropolis Museum. In London, the frieze is situated on the walls of the main section of the Duveen Gallery, facing inwards. Further, the London presentation of the frieze seems to suggest, incorrectly, that the display captures the entirety of the frieze, the full procession as depicted on the Parthenon ([British Committee for the Reunification, 2022](#)).

My suspicion, as indicated above, is that the aesthetic appeal of the Athens location draws in part from the continuing existence of the Parthenon itself. The fact that the structure for which the Marbles were built (and were attached to for more than two millennia) remains standing on the Acropolis lends more vibrancy to the art when viewed in close proximity to the Parthenon. Remnants of no-longer-extant buildings do not seem to gain as much site-specific value. The Chicago Stock Exchange, a landmark 19th century building designed by Louis Sullivan and Dankmar Adler, was razed in 1972. The arched entrance-way of the building now sits outside the [Art Institute of Chicago](#), but I don't think

that the viewing experience would be significantly diminished if the arch were to be moved to, say, the side of Adler and Sullivan's Wainwright Building in St. Louis.⁵⁰ (Should all orphaned arches relocate to St. Louis?) But if the Stock Exchange still existed, then placing its original entranceway nearby would hold some aesthetic advantages, perhaps, and facilitate a visit both to the old building and its arch in a single excursion.

The (contrasting) aesthetic case for the Parthenon Marbles remaining in the British Museum is less about the Marbles in and of themselves, but rather, in their proximity to many other artistic treasures from a wide range of civilizations and time periods.⁵¹ The Enlightenment values that produced the Encyclopédie brought the parallel (and contemporaneous) project of the encyclopedic museum. "The cosmopolitanism of the something-for-everyone museum is predicated on a pluralist idea of history where the making and understanding of one culture informs and is informed by knowledge of others, and complements the kind of national museum that is able to exhibit its own culture only."⁵²

Along with tourists, researchers form another important constituency for Greek antiquities. (And the knowledge they create becomes a public good, that is, current and future people can benefit from the information provided by research.) In terms of research access, however, London or Athens or indeed, many alternative locations, could offer appropriate degrees of availability. Athens nevertheless might have the nod, here, too, in that researchers housed in the Acropolis Museum will be in an environment steeped in expertise concerning both the Parthenon and the ancient Acropolis more generally – an advantage that would be hard to replicate elsewhere.⁵³

Other components of value might not be directly reflected in the consumer surplus available to current or future museum visitors or in the scientific benefits to researchers and the world [[Throsby, 2010](#)], pp. 110–113]. Environmental economics employs the notion of existence value, which is unconnected to any option value of future "consumption" from visiting: the value derives from mere knowledge of the existence of the Marbles ([Krutilla, 1967](#)). Existence value is a public good, everyone can enjoy the existence of the Marbles simultaneously. In aggregate, existence value for cultural property can be very significant. This significance becomes manifest in some unfortunate circumstances, such as those involving the destruction of cultural artifacts. When the old bridge in Mostar was destroyed in 1993, and when the Buddhas of Bamiyan met a similar fate in 2001, the distress extended to people around the globe who possessed no interest in or effectual

⁴⁷ "At the Acropolis Museum, of course, 100 percent of its visitors see the Marbles ... [[Robertson, 2019](#)], p. 119]."

⁴⁸ "The purpose of an art museum is *more, better engagement with art*." – O'Hare ([O'Hare, 2015](#)); the notion is that though London's current surplus in visitors might lead to more engagement with the Elgin Marbles, the Acropolis Museum might offer better engagement.

⁴⁹ The British Museum's website includes a virtual tour of the Duveen Gallery (Gallery 18) available at ([The British Museum, 2022b](#)). The Acropolis Museum also has a virtual tour ([The Acropolis Museum, 2022a](#)). In 2022, the Acropolis Museum added an online application allowing for a detailed, block-by-block examination of the Parthenon frieze; see ([The Acropolis Museum, 2022b](#)).

⁵⁰ A partial reconstruction of the trading floor from the defunct Chicago Stock Exchange Building does exist inside the Art Institute ([Art Institute of Chicago, 2022](#)). Incidentally, the frieze adorning the exterior of the [Art Institute of Chicago](#) – a building which opened in 1893 – is modeled on the Parthenon's frieze; see photos at ([Jenkins, 2022](#)).

⁵¹ The coverage of various time periods also is a feature of the Acropolis Museum, which contains artifacts from the full range of the Acropolis's history, including many striking pre-Parthenon holdings.

⁵² [Jenkins](#) [[Jenkins, 2007](#)], p. 18]. In his sentence preceding the quote, [Jenkins](#) connects the idea of a universal museum to the Enlightenment ([Cuno, 2014](#)); and ([Cuno, 2008](#)) offer a defense of the value of encyclopedic museums. [Robertson](#) [[Robertson, 2019](#)], p. 116] is dismissive of the proclaimed advantages of viewing the Marbles within the context provided by the "universal" British Museum: "Its fallacy is obvious: the museum does contain artwork from different civilisations but makes little attempt to compare them with the Parthenon Sculptures, because for the most part they are incomparable."

⁵³ The detailed specific knowledge of the Acropolis that exists in Athens extends to the many marble workers with long experience restoring the Parthenon and other Acropolis buildings; see the fascinating interviews with Acropolis workers in the bilingual book (English/Greek) by [Vieira](#) ([Vieira, 2019](#)).

prospect of ever visiting the sites.⁵⁴ With respect to the Parthenon Marbles controversy, however, there doesn't seem to be any reason for the existence value, extensive though it might be, to differ based on the location of the Marbles.

What might differ based on location is the probability that the Marbles will continue to exist at all. The potential for a catastrophic loss of the Marbles remains, both in Britain and in Greece.⁵⁵ As noted, the Elgin collection was safeguarded, presciently, during World War II. The comparative likelihood of many existential threats to the statuary, such as wars, terrorism, or ideologically-motivated intentional destruction, is hard to measure. One sort of natural disaster, however – a serious earthquake – is more likely to occur in Athens than in London. A nonprofit consortium that assesses earthquake dangers, the European Facilities for Earthquake Hazard and Risk, indicates that with respect to both “hazards” (the likelihood of earthquakes) and “risks” (the impacts of earthquakes), Athens is in much greater peril than London.⁵⁶

Even with high earthquake hazards, risks to buildings and statuary can be reduced through appropriate construction and placement. The Parthenon itself has survived myriad earthquakes – it was wartime damage that “ruined” it – and the ongoing restoration includes elements of mitigating harms from future earthquakes.⁵⁷ The Acropolis Museum incorporates significant earthquake-proofing features into its structure (Huber et al., 2008) and [(Bernard Tschumi Architects, 2009), p. 84].

The general threat to cultural treasures from war or natural disaster or other perils presents a case both for dispersing originals, and, in the case of sculptures, for fashioning moulds and multiple casts.⁵⁸ Cast collections can serve the comparative element promoted by encyclopedic museums, and offer superb visitor engagement, too.⁵⁹ The Acropolis Museum displays casts (clearly identifiable by their lighter

coloring) in the places designated to eventually hold those Parthenon Marbles currently housed elsewhere. In Switzerland, the Skulpturhalle Basel displays a near complete set of casts of the Parthenon statuary. With digitization, exact reproductions of cultural artifacts are now possible; in the case of the Parthenon statuary, in principle, the reproductions could even be manufactured using the same material as the originals, Pentelic marble.

Consider again the Law-and-Economics-style argument that under Coasean conditions, the highest-value location for the Marbles is independent of the identity of the rightful owner. A related claim, when transaction and relocation costs are zero, is that the highest-value location is independent of where the Marbles currently happen to reside. This notion suggests the thought experiment, what if all the Marbles currently were housed in Athens?⁶⁰ Given this hypothetical status quo, how much traction would be gained by a proposal to permanently relocate half of the Marbles to London? I think that such a proposal would engender very little (disinterested) support; to the contrary, I think that the pained outcry from Greece and beyond brought about by any attempt to relocate half of the Marbles would be intense – and that outcry would have little to do with standard relocation costs. If my understanding is correct, then the Coasean logic suggests that Athens might well be the highest-value location for the Parthenon Marbles.

But perhaps the thought experiment – changing the endowment such that all the Parthenon statuary resides in Athens, and asking if it is efficiency enhancing to ship half the collection to London – is slightly unfair. Perhaps what makes Athens seem preferable in that experiment is not the superiority of Athens as a location, but the entire collection being together; if that is the case, then perhaps moving all of the sculptures to London would be just as desirable as reuniting the statuary in Athens. (Nonetheless, as I already have argued, the aesthetic and research advantages of Athens render it the appropriate locale for the near complete set of Parthenon stones.)

The integrity of an artwork often is an important component of its value, both to its creator and to the public at large [(Merryman, 1989), pp. 343–345]. Many jurisdictions offer some protections for artistic integrity, limiting the destruction of art, for example, or forbidding alterations that threaten that integrity. Simultaneously, the integrity of an artwork is hard to define – though splitting a unified work into parts and dispersing those parts widely would constitute a clear loss of integrity. Were artistic integrity the only concern, Elgin's original taking of the Parthenon Marbles would not have been countenanced, nor would be the continued separation of the Athens and London portions. Whatever location is best for the Marbles, there is a substantial efficiency argument for keeping the bulk of the Parthenon statuary together.

Artistic integrity is one area where casts or other reproductions tend to fall short of originals: “The truth, the certainty, the authenticity, seem to inhere in the original [(Merryman, 1989), p. 346].” The emerging market for Non-Fungible Tokens seems to reflect immense value (or at least price) advantages for originals in comparison with identical replications – identical, that is, except for the publicly accessible guarantee

⁵⁴ Anguish over the cultural depredations of the Islamic State is a more recent example (Baggini, 2015).

⁵⁵ Catastrophic loss can occur not just in a single event but also in the course of decades of accumulating deterioration, suggesting that at some level there is a tradeoff between access and damage to artifacts.

⁵⁶ On European earthquake hazards, see (European Facilities for Earthquake Hazard, 2021a); on risks, (European Facilities for Earthquake Hazard, 2021b).

⁵⁷ See, for example, [(Vieira, 2019), pp. 84–85]. The resilience that the Parthenon has shown so far to seismic events appears not solely to be the product of a long string of good luck; that is, the Parthenon structure and its situation on the Acropolis render it fairly (though not completely) resistant to seismic events (Pitilakis et al., 2022).

⁵⁸ Lord Elgin's moulds and casts of some of the Parthenon statuary are an unusually uncontroversial element of his Acropolis activity, and they were transferred to the British Museum with the rest of his collection. The casts (along with 3d imaging) continue to provide useful information, although the British Museum's Elgin casts today are not his originals, but rather second-generation, casts made from moulds crafted from the original casts; see the intriguing story in Payne (Payne, 2019), which documents the significant scientific value of the Elgin casts. The British Museum was quite active on both the demand and supply side for casts of the Parthenon statuary in the nineteenth century, and until the 1930s, casts of non-Elgin marbles were shown alongside the Elgin originals in the British Museum (Jenkins, 1990). “It is reckoned that by the mid-nineteenth century there was hardly a sizable town in Europe or North America that did not somewhere possess the cast of at least one of Elgin's marbles [(Beard, 2010), p. 18].”

⁵⁹ Excellent cast collections are featured, for instance, in the Pushkin State Museum of Fine Arts in Moscow and the Victoria and Albert Museum in London.

⁶⁰ This question is asked and explored in [(Leitzel, 2015), p. 124].

that the owner of the original really owns the “original” piece of digital art, which is not available with the copies.⁶¹ Nonetheless, it may be that as technological advances improve the quality of reproductions, the “integrity” advantage possessed by original pieces of cultural objects relative to copies might erode (Cronin, 2015).

5. Endowments and cultural heritage

The standard Coasean contention concerning the independence of optimal asset use (or location) from the legal assignment of ownership has been challenged in recent decades by research into “endowment effects” (Kahneman et al., 1990). Specifically, endowment effects arise when the mere ownership of an object increases the subjective value that is placed on that object [(Kahneman, 2011), pp. 289–299]. If I initially think that a house is worth \$200,000 to me, but then I acquire the house (by any means, such as a gift), I will tend to think it is more valuable now that it is mine: this is one manifestation of an endowment effect.

In a dispute involving incompatible uses (or locations) of an asset, a Coasean approach suggests having a court or some other legal authority determine who owns the relevant property right: either I have the right to a noise-free late-night environment, or my neighbor has the right to play loud music at 2AM, to use a standard example (Farrell, 1987). Once the owner of the property right is clear, then that right can be transferred; hence, in the absence of transaction costs, the party with the highest valuation will end up possessing the property right, independently of the court’s initial allocation. But if endowment effects are substantial, the court’s decision will itself alter valuations: whoever is declared the owner of the right will raise her subjective valuation, making it less likely that the property right will be transferred. The highest-value owner will still end up with the property right, but the court decision might itself determine which party has the highest valuation.

In the case of the Parthenon Marbles, it is likely that many representatives from both Britain and from Greece believe that their nation is the rightful owner – and such a feeling might be immune to any future court pronouncements.⁶² Such incompatible feelings towards legitimate ownership do not, in themselves, alter the “optimal” location or the transferability of the Marbles, at least if the endowment effects are symmetric. But the status quo of British possession makes the situation not wholly symmetric. The “reference point” for the British might well be the current situation; the return of the Marbles in itself, then, would be “coded as a loss” for the British, and with loss aversion, the British would need substantial recompense to view the return of the Marbles as serving their interests.⁶³

The Coasean logic that suggests that once property rights are clear,

then mutually advantageous transactions can allow those rights expeditiously to be transferred to the owner with the highest valuation, does not always play out in practice. The losing party in a contentious court case seems to be reluctant to approach the winning party and offer a deal to voluntarily acquire from the winner what the loser (though not the court) believes she already had a right to (Farnsworth, 1999). The psychological costs of feeling hard done by, supplemented by the winner’s newfound endowment effect, tend to undermine the prospects for post-litigation cooperative agreements that involve transferring the property right to the losing party. Perhaps these sorts of barriers to deals contribute to making litigation an unpromising avenue for resolving cultural property disputes.⁶⁴

One element of valuation that does not readily convert into willingness-to-pay is the extent to which a location’s identity (or the identity of the people in the location) is tied to possession of a piece of cultural property. If the US were to sell and export the Statue of Liberty or the Liberty Bell or the Brooklyn Bridge, for instance, many US citizens would be considerably aggrieved. Indeed, even foreign ownership of assets that remain in the United States sometimes is controversial.⁶⁵

Many Greeks feel an intense cultural affinity for the Parthenon Marbles – an affinity that seems to exceed that felt by the British for the same statuary.⁶⁶ This connection was famously expressed by Melina Mercouri, the Minister of Culture of Greece, in a 1986 address: “You must understand what the Parthenon Marbles mean to us. They are our pride. They are our sacrifices. They are our noblest symbol of excellence. They are a tribute to the democratic philosophy. They are our aspirations and our *name*. They are the essence of Greekness.” (Mercouri, 1986) That is, the Parthenon Marbles are to Greece perhaps something like Stonehenge is to Britain, site-specific and, for many people, part of the national cultural heritage.⁶⁷ Just as exporting half of Stonehenge would be disliked by many British people – even if the new location attracted more visitors, provided insurance against disaster, and the original location of the exported stones was filled with precise plaster casts – holding half of the Parthenon Marbles in London is galling to many Greeks.⁶⁸ The efficiency rationale for returning the Marbles to

⁶⁴ On the relative weakness of litigation in resolving disputes within the cultural property context, see (Markowitz, 2012) and [(Stamatoudi, 2016), pp. 435–437]. Wadsworth (Wadsworth, 2022) argues that Greece should accept that it cannot receive a binding, enforceable court ruling in the Parthenon Marbles case, but perhaps could benefit from a favorable advisory opinion issued by an international court.

⁶⁵ See, e.g., (Francis, 2013).

⁶⁶ Polling data indicate that most British people believe the Marbles should be returned to Greece. For instance, in a poll of 7717 British adults conducted in November 2021, 59% of the respondents favored Greece as the appropriate location for the Marbles, 22% chose “Don’t Know,” and only 18% believed the Marbles belonged in Britain (Results of YouGov poll on, 2021). Prior to becoming British Prime Minister, Boris Johnson had been quite receptive to return of the Parthenon Marbles (Smith, 2021).

⁶⁷ The use of the term “heritage” is not uncontroversial, because it might suggest that goods considered to be part of a culture’s or nation’s “heritage” need to be protected; see [(Merryman, 1990), pp. 521–522], and for a contrasting view, see (Prott & O’Keefe, 1992). The term “protection” also is controversial, incidentally, as is “property”. My use of these contested terms is not meant to signal allegiance to any particular side of the Parthenon Marbles debate.

⁶⁸ The possibility that Stonehenge could have been exported is not totally fanciful [(Magnusson and Greenfield, 2007), p. 8].

⁶¹ NFT issuers might condition other benefits upon NFT ownership, however, which could present additional channels of value to possessing NFTs (Kaczynski & Kominers, 2021).

⁶² Alternatively, if “winning” the property rights to the Marbles is seen as a sort of personal triumph, the endowment effect can be magnified; see (Bühren & Pleßner, 2014).

⁶³ Loss aversion is the notion that the utility “cost” of a negative departure from a decision maker’s reference point (often the status quo or some likely, expected outcome) is greater in magnitude than the utility improvement associated with an equal (in monetary terms) gain relative to that reference point; see, e.g., [(Kahneman, 2011), pp. 278–288]. Neither the endowment effect nor loss aversion are uncontroversial; see, for example (Plott & Zeiler, 2007), and (Gal & Rucker, 2018).

Greece is bolstered to the extent that Greeks would be “willing-to-pay” to eliminate that galling feeling. This is true even if the gall would not be reduced by a direct payment from Greece to Britain for the Marbles, as that payment might be felt to be just as (or more) galling.⁶⁹ That is, the willingness-to-pay by the Greeks for the return of the Marbles might be quite substantial, as long as an actual monetary quid-pro-quo is not involved. It is not unusual for the addition of direct monetary compensation to alter the moral view that many people might apply to an otherwise blameless transaction, as attested to by kidney donations and intimate relationships.⁷⁰

The Greek attachment to the Elgin Marbles might go beyond standard economic rationality.⁷¹ The Parthenon, the Acropolis Museum, and even casts of the Elgin collection are all available in Athens. Is it really that important to possess still more of the original Parthenon sculptures?⁷² Maybe not, but like other tastes, these are ones that economists should take as given – even though these tastes can alter considerably with time [(Cowen, 2002), pp. 140–141]. And if Athens is indeed a better location in terms of the quality of visitor and research access, then the Greek attachment to the Parthenon Marbles promotes an end that is socially desirable on other grounds.

6. Conclusions

The Law and Economics approach to property disputes such as that concerning the Parthenon Marbles in the British Museum involves seeking an outcome that comports with the maximization of efficiency. This approach ignores – except to the extent that efficiency is implicated – issues such as legality, justice, and ethics: issues that often are highlighted in other approaches to the Marbles dispute.⁷³ What efficiency does take into account are the preferences of all interested individuals, current and future, while reflecting the intensity of those preferences, generally expressed in terms of the willingness-to-pay for various alternatives.

Merryman (Merryman, 1986) introduced an influential dichotomous framework covering approaches to resolving cultural property disputes like that presented by the Parthenon Marbles. One approach is cosmopolitan, where cultural treasures are viewed as the world’s patrimony, not falling within the exclusive domain of a specific territory or country. The second approach is nationalistic, which grants “nations a special interest, implies the attribution of national character to objects, independently of their location or ownership, and legitimizes national export controls and demands for the ‘repatriation’ of cultural property [(Merryman, 1986), p. 832].” The fact that efficiency concerns the preferences of all people indicates that it has no direct interest in national boundaries or national cultural heritage: in the “two ways of thinking about cultural property” identified by Merryman, efficiency falls on the cosmopolitan, one-common-culture side of the divide. Nonetheless, the intensity of preferences that, for example, individual Greeks might feel for return of the Parthenon Marbles would form part of any efficiency analysis, as would the preferences of everyone. But these sorts of intense preferences will not figure to the same extent in all or even most cultural property disputes – the Parthenon and its statuary are

⁶⁹ Robertson [(Robertson, 2019), p. xiii] notes a similar issue with the possibility of a long-term British loan of the Marbles to Greece: “Offering stolen heritage back on loan – for however long – is a post-colonial insult.”

⁷⁰ See, e.g., (Roth, 2007). Greece showed aversion to providing monetary compensation when seeking the return of disputed antiquities from American collectors Leon Levy and Shelby White [(Stamatoudi, 2016), pp. 445–446].

⁷¹ The value of identity, however, has been incorporated into the standard economics framework in a fruitful way; see, for example (Akerlof & Kranton, 2010), and (Carvalho, 2016).

⁷² More generally, the internet and inexpensive travel have in recent decades diminished (though not eliminated) the advantage to having artistic “originals” close at hand; see [(O’Hare, 2015), pp. 76–77].

⁷³ See, for example, Fincham (Fincham, 2013).

nearly unrivaled in terms of cultural value. With respect to setting precedents, then, an efficiency rationale for return of the Parthenon Marbles does not support a general rule that people today who happen to inhabit a region of the earth where great art was produced or resided in the past have any stronger claim than do the rest of us to possession or ownership of the art.⁷⁴

The major elements of the efficiency-centered view are the number of people who can see the Marbles in the competing locations; the value of the per-person aesthetic experience that viewing the Marbles would hold in the alternative locations⁷⁵; and the intensity of the desire for possession unrelated to viewing, perhaps deriving from an understanding that the Marbles form a key part of Greek (or British) cultural heritage. In my estimation, the aesthetic and the “cultural heritage” elements greatly favor the Athens claim, whereas in terms of number of visitors, London currently is superior. Further, the reunification of the complete set of extant Parthenon sculptures, cojoined siblings for two millennia on the Acropolis, offers gains in value in either location.

Assuming that the efficiency calculus does favor Athens, as I am suggesting, what sort of a deal can be struck that will result in the reunification of the Parthenon Marbles at the Acropolis Museum? Such a mutually beneficial bargain will be possible, by the usual economics reasoning, if indeed Athens remains the more efficient location, even when transaction and relocation costs are accounted for. The rudiments of a potential agreement are suggested by resolutions to other recent cultural property disputes.⁷⁶ The idea is to fashion the return of the Elgin collection into a celebration of the art and the initiation of a new phase of Greek-British cooperation in matters cultural.⁷⁷ Loans of other Greek antiquities to Britain, exhibits in Athens and London devoted to the British Museum’s stewardship over the Marbles, scholarly conferences (perhaps in many fields, including, for instance, literature, history, and economics), joint 3d scanning and preparation of new high-quality casts, and commitments to continued educational exchanges (such as internships for British students at the Acropolis Museum or other Greek cultural institutions, with reciprocity in post-Brexit Britain for Greek students): these are the types of elements that can transform an ongoing irritant in Greek-British relations into a celebration and enhancement of the Parthenon, the Acropolis Museum, and the British Museum and their centrality in world culture.

CRedit authorship contribution statement

Jim Leitzel: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

⁷⁴ Appiah [(Appiah, 2006), pp. 119–120], makes a similar point.

⁷⁵ Or rather, the incremental value relative to the viewing experience without the Marbles, which might still include high-quality plaster casts, for instance.

⁷⁶ See, for example, (Wolkoff, 2010), (Markowitz, 2012), and (Stamatoudi, 2016). For an example of such a mutually beneficial agreement, see (The Metropolitan Museum of Art, 2006). There was a brief moment in February 2020 when it appeared that return of the Parthenon Marbles could be an element of the complex Brexit deal between the European Union and the United Kingdom (120). The return of a Parthenon frieze fragment to Athens from Palermo in 2022 was reciprocated by a loan of two ancient Greek artifacts to Italy (Italy returns Parthenon marble fragment, 2022).

⁷⁷ This notion echoes the comments of the Greek Minister of Foreign Affairs George Papandreou to a British Parliamentary Select Committee on Culture, Media and Sport, on June 5, 2000; see (UK House of Commons, 2000). Papandreou spoke of adding “a new partnership between Greece and Britain, to the one we already have and one we want to deepen and further, based on the return of the Marbles. An example would be to examine the rotating exhibitions of ancient Greek art in London and the British Museum. Let me simply say, indeed, it is a unique opportunity to forge a much deeper, unique, cultural relationship between Greece and Britain ...”

Declaration of competing interest

The authors declare that they have no known competing financial

interests or personal relationships that could have appeared to influence the work reported in this paper.

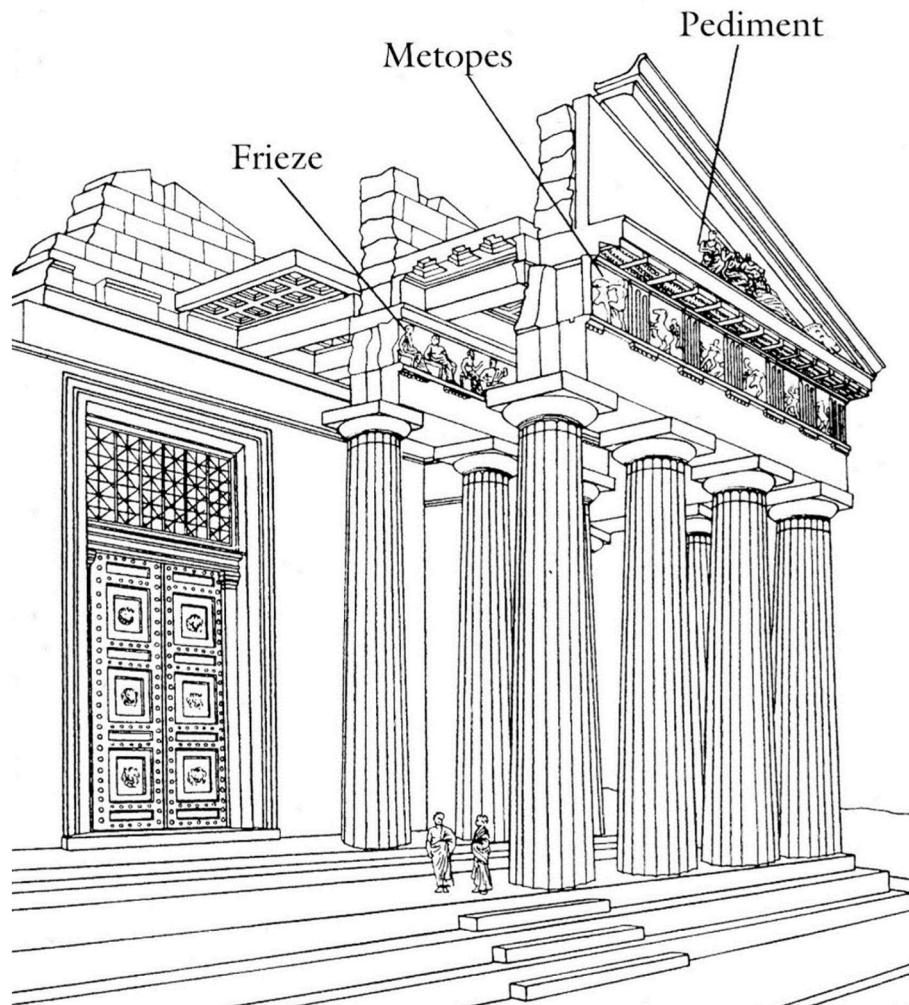
Appendix: A. Guide to the Original Placement of Sculptural Elements on the Parthenon

Image from British Museum blog post “An introduction to the Parthenon and its sculptures,” (British Museum blog, 2018).

References

- Abrams, A. (2022). Italy opens the Museum of Rescued Art, dedicated to cultural heritage the country reclaimed from abroad. *Artnet*. June 16 <https://news.artnet.com/art-world/italy-museum-rescued-art-rome-2131740>. (Accessed 29 June 2022).
- Acropolis museum, Highlights report. June 2019-May 2020 https://issuu.com/theacropolismuseum/docs/acropolis_museum_annual_report_en_2020. (Accessed 29 June 2022).
- Acropolis museum, tickets. <https://www.theacropolismuseum.gr/en/plan-your-visit#eisitiria>. (Accessed 29 June 2022).
- The Acropolis museum, virtual tour at the Acropolis museum. <https://www.theacropolismuseum.gr/en/virtual-tour-acropolis-museum>. (Accessed 29 June 2022).
- The Acropolis museum, about the frieze. <https://www.parthenonfrieze.gr/en/about-the-frieze/>. (Accessed 29 June 2022).
- Akerlof, G. A., & Kranton, R. E. (2010). *Identity economics: How our identities shape our work, wages, and well-being*. Princeton: Princeton University Press.
- Appiah, K. A. (2006). *Cosmopolitanism: Ethics in a world of strangers*. New York: W.W. Norton.
- Art Institute of Chicago. Chicago Stock exchange trading room. <https://www.artic.edu/venue-rental/event-spaces/chicago-stock-exchange-trading-room>. (Accessed 29 June 2022).
- ArThemis database, art-law centre. University of Geneva <https://plone.unige.ch/art-adr/cases-affaires>. (Accessed 29 June 2022).
- Baggini, J. (2015). *Why it's all right to be more horrified by the razing of Palmyra than mass murder*. The Guardian, 24 August <http://www.theguardian.com/culture/2015/aug/24/razing-palmyra-mass-murder-isis>. (Accessed 29 June 2022).
- Barletta, B. A. (2005). The architecture and architects of the classical Parthenon. In J. Neils (Ed.), *The Parthenon: From antiquity to the present* (pp. 66–99). Cambridge: Cambridge University Press.
- BBC News. (2015). Elgin marbles: UK declines mediation over Parthenon sculptures, 8 April <https://www.bbc.com/news/uk-32204548>. (Accessed 29 June 2022).
- Beard, M. (2010). *The Parthenon, revised* (ed.). Cambridge, MA: Harvard University Press.
- Beresford, J. (2014). Mind the gap: Prediction and performance in respect to visitor numbers at the new Acropolis museum. *Museum & Society*, 12, 171–190.
- Bernard Tschumi Architects. (2009). In *The new Acropolis museum*. New York: Skira Rizzoli Publications, Inc.
- Boadway, R. W., & Bruce, N. (1984). *Welfare economics*. New York: Basil Blackwell.

- Boardman, J. (2000). The Elgin marbles: Matters of fact and opinion. *International Journal of Cultural Property*, 9, 233–262.
- British Museum blog, an introduction to the Parthenon and its sculptures. January 11, 2018 <https://blog.britishmuseum.org/an-introduction-to-the-parthenon-and-its-sculptures/>. (Accessed 29 June 2022).
- The British museum, the Parthenon sculptures. (2022). <https://www.britishmuseum.org/about-us/british-museum-story/contested-objects-collection/parthenon-sculptures>. (Accessed 29 June 2022).
- British Museum and the State Hermitage Museum celebrate 250th enlightenment anniversary with the loan of a Parthenon sculpture, British Museum press release, December Vol. 5, 2014, <https://britishmuseumblog.files.wordpress.com/2014/12/press-release-british-museum-loan-of-parthenon-sculpture-to-hermitage.pdf> (accessed 29 June 2022)..
- British committee for the reunification of the Parthenon marbles, the case for the return. <https://www.parthenonuk.com/the-case-for-the-return>. (Accessed 29 June 2022).
- The British museum, Greece. Parthenon 447–432 BC <https://www.britishmuseum.org/collection/galleries/greece-parthenon#&gid=1&pid=4>. (Accessed 29 June 2022).
- Browning, R. (2008). The Parthenon in history. In C. Hitchens (Ed.), *The Parthenon marbles*. London: Verso.
- Bühnen, C., & Plešner, M. (2014). The trophy effect. *Journal of Behavioral Decision Making*, 27, 363–377.
- Byron, L. (1820). In *The Curse of Minerva* (4th ed.). Paris: Galignani https://books.google.com/books/about/The_Curse_of_Minerva.html?id=MugQAAAAYAAJ. (Accessed 29 June 2022).
- Carvalho, J.-P. (2016). Identity-based organizations. *The American Economic Review*, 106, 410–414.
- Chrysopoulos, P. (2018). UNESCO committee calls for talks between Britain and Greece over Parthenon sculptures issue. *Archaeology News Network*. June 1 <https://archaeologynewsnetwork.blogspot.com/2018/06/unesco-committee-calls-for-talks.html>. (Accessed 29 June 2022).
- Clair, W. S. (1999). The Elgin marbles: Questions of stewardship and accountability. *International Journal of Cultural Property*, 8, 391–521.
- Coase, R. (1960). The problem of social cost. *The Journal of Law and Economics*, 3, 1–44.
- Connelly, J. B. (2014). *The Parthenon enigma*. New York: Knopf.
- Continent and region populations 2022, world population review. <https://worldpopulationreview.com/continents>. (Accessed 29 June 2022).
- Cook, B. F. (1997). *The Elgin marbles*. London: British Museum Press.
- Cowen, T. (2002). *Creative destruction: How globalization is changing the world's cultures*. Princeton: Princeton University Press.
- Cronin, C. (2015). 3D printing: Cultural property as intellectual property. *Columbia Journal of Law & the Arts*, 39, 1–40. <https://doi.org/10.7916/jla.v39i1.2093>
- Cuno, J. (2008). *Who owns antiquity? Museums and the battle over our ancient heritage*. Princeton: Princeton University Press.
- Cuno, J. (2014). Culture war: The case against repatriating museum artifacts. *Foreign Affairs*, 93, 119–129.
- De Ryck, J.-P. (2007). Arnould de Vuez, auteur des dessins du Parthénon attribués à Carrey. *Bulletin de Correspondance Hellénique*, 131, 721–753.
- Department for digital, culture, Media & Sport, DCMS-sponsored museums and galleries annual performance indicators 2019/20, 28 January 2021. <https://www.gov.uk/government/statistics/dcms-sponsored-museums-and-galleries-annual-performance-indicators-201920/dcms-sponsored-museums-and-galleries-annual-performance-indicators-201920>. (Accessed 29 June 2022).
- Elginism blog, what is in a name?. September 12, 2009 <http://www.elginism.com/why-are-the-parthenon-sculptures-called-the-elgin-marbles/>. (Accessed 29 June 2022).
- Encyclopedia Britannica, Athena parthenos. <https://www.britannica.com/topic/Athena-Parthenos>. (Accessed 29 June 2022).
- European Facilities for earthquake hazard and risk, earthquake hazard across Europe. (2021). <http://www.efehr.org/earthquake-hazard/hazard-map/>. (Accessed 29 June 2022).
- European Facilities for earthquake hazard and risk, earthquake risk across Europe. (2021). <http://www.efehr.org/Earthquake-risk/risk-map/>. (Accessed 29 June 2022).
- Farnsworth, W. (1999). Do parties to nuisance cases bargain after judgment? A glimpse inside the cathedral. *University of Chicago Law Review*, 66, 373–436.
- Farrell, J. (1987). Information and the Coase theorem. *The Journal of Economic Perspectives*, 1, 113–129.
- Fincham, D. (2013). The Parthenon sculptures and cultural justice. *Fordham Intellectual Property, Media and Entertainment Law Journal*, 23, 943–1016.
- Francis, D. (2013). Why are we letting China buy American companies? *New York Post*. December 15 <http://nypost.com/2013/12/15/why-are-we-letting-china-buy-american-companies/>. (Accessed 30 June 2022).
- Freeman, C. (2010). *The horses of St. Mark's: A story of triumph in Byzantium, Paris and Venice*. New York: Overlook Press.
- Frey, B. S. (2013). Alternatives to the 'legitimate ownership' of art heritage. *Transnational Dispute Management*, 10, 1–9.
- Gal, D., & Rucker, D. D. (2018). The loss of loss aversion: Will it loom larger than its gain? *Journal of Consumer Psychology*, 28, 497–516. <https://doi.org/10.1002/jcpsy.1047>
- Godwin, H. R. (2020). Legal complications of repatriation at the British museum. *Washington International Law Journal*, 30, 144–170.
- Grant, D. (2014). What happens when museums return antiquities? *Hyperallergic*. March 18 <http://hyperallergic.com/115015/what-happens-when-museums-return-antiquities/>. (Accessed 29 June 2022).
- Greenfield, J. (2007). In *The return of cultural treasures* (3rd ed.). Cambridge: Cambridge University Press.
- Hazlitt, W. (1903). *The Collected Works of William Hazlitt: The principal picture-galleries in England. Notes of a journey through France and Italy. Miscellaneous essays on the fine arts*. London: J. M. Dent & Co.
- Herman, A. (2021). *Restitution: The return of cultural artefacts*. London: Lund Humphries [Kindle version].
- Hitchens, C. (2008). *The Parthenon marbles*. London: Verso.
- Huber, P., & Medeot, R. (2008). The Sliding Isolation Pendulum for the seismic protection of buildings. In N. Jones, & C. A. Brebbia (Eds.), *Structures under shock and impact X* (pp. 323–332). Southampton, UK: WIT Press.
- Italy returns Parthenon marble fragment to Greece, precedent seen. (2022). The National Herald. May 20 <https://www.thenationalherald.com/italy-returns-parthenon-marble-fragment-to-greece-precedent-seen/>. (Accessed 29 June 2022).
- Janžeković, I. (2016). A series of (un)fortunate events: The Elgin marbles. *J. of Art Crime*, 16, 55–76.
- Jenkins, G. H. The Chicago loop photographs, art Institute of Chicago, Parthenon frieze. <https://www.thechicagoloop.org/s.aich.frie.00000.html>. (Accessed 29 June 2022).
- Jenkins, I. (1990). Acquisition and supply of casts of the Parthenon sculptures by the British Museum, 1835–1939. *Annual of the British School at Athens*, 85, 89–114.
- Jenkins, I. (2001). The Elgin marbles: Questions of accuracy and reliability. *International Journal of Cultural Property*, 10, 55–69.
- Jenkins, I. (2007). *The Parthenon sculptures*. Cambridge, MA: Harvard University Press.
- Johnston, I. (2016). *First-ever legal bid for return of Elgin marbles to Greece thrown out by European court of human rights*. The Independent, 19 July <https://www.independent.co.uk/news/uk/home-news/elgin-marbles-return-greece-legal-bid-thrown-out-eu-court-human-rights-a7145216.html>. (Accessed 29 June 2022).
- Kaczynski, S., & Kominers, S. D. (2021). How NFTs create value. *Harvard Bus. Rev., digital article*. November 10 <https://hbr.org/2021/11/how-nfts-create-value>. (Accessed 29 June 2022).
- Kahneman, D. (2011). *Thinking fast and slow*. New York: Farrar, Straus and Giroux.
- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy*, 98, 1325–1348.
- Korka, E. (2016). New archival evidence for the chronicle of the removal of the Parthenon marbles by Lord Elgin. In F. Mallouchou-Tufano, & A. Malikourti (Eds.), *200 Years: The Parthenon marbles in the British museum, new contributions to the issue* (pp. 52–61). Athens: The Society of Friends of the Acropolis.
- Kourkoumelis, D. (2016). Recent underwater research at the brig 'Mentor' sunken at Kythera (1802). In F. Mallouchou-Tufano, & A. Malikourti (Eds.), *200 Years: The Parthenon marbles in the British museum, new contributions to the issue* (pp. 82–89). Athens: The Society of Friends of the Acropolis.
- Krutilla, J. V. (1967). Conservation reconsidered. *The American Economic Review*, 57, 777–786.
- Legal theory Lexicon, lawrence solum, efficiency, Pareto, and kaldor-hicks. January 25 <http://lsolum.typepad.com/legaltheory/2009/01/legal-theory-lexicon-efficiency-pareto-and-kaldorhicks.html>, (2009)–. (Accessed 29 June 2022) (accessed).
- Leitzel, J. (2015). *Concepts in law and economics: A Guide for the curious*. New York: Oxford University Press.
- Losson, P. (2021). Opening Pandora's box: Will the return of cultural heritage objects to their country of origin empty Western museums? *The Journal of Arts Management, Law, and Society*, 51, 379–392. <https://doi.org/10.1080/10632921.2021.1941467>
- Lyons, C. L. (2014). Thinking about antiquities: Museums and internationalism. *International Journal of Cultural Property*, 21, 251–265.
- Magnusson, M. (2007). Introduction. In J. Greenfield (Ed.), *The return of cultural treasures* (3rd ed., pp. 1–12). Cambridge: Cambridge University Press.
- Manidaki, V. (2016). The fragmentation of the Parthenon frieze. In F. Mallouchou-Tufano, & A. Malikourti (Eds.), *200 Years: The Parthenon marbles in the British museum, new contributions to the issue* (pp. 90–105). Athens: The Society of Friends of the Acropolis.
- Markowitz, S. (2012). Note: A meteorite and a lost city: Mutually beneficial solutions through alternative dispute resolution. *Cardozo J. of Confl. Resolut.*, 14, 219–250.
- Martin, N. (2022). Reunite Parthenon: Commemorative stamps released by hellenic post and Acropolis museum, Greek city times. June 17, 2022 <https://greekcitytimes.com/2022/06/17/reunite-parthenon-commemorative-stamps-released-by-hellenic-post-and-acropolis-museum/>. (Accessed 29 June 2022).
- McClellan, A. (2008). *The art museum: From boullée to bilbao*. Berkeley: University of California Press.
- Mercouri, M. (1986). *Melina's speech to the oxford union*. June 12 <http://www.parthenon.newmentor.net/speech.htm>. (Accessed 30 June 2022).
- Merryman, J. H. (1986). Two ways of thinking about cultural property. *American Journal of International Law*, 80, 831–853.
- Merryman, J. H. (1989). The public interest in cultural property. *California Law Review*, 77, 339–364.
- Merryman, J. H. (1990). Protection of the cultural 'heritage'. *American Journal of Comparative Law*, 38(Supp), 513–522.
- The metropolitan museum of art—republic of Italy agreement of february 21, 2006. *International Journal of Cultural Property*, 13, (2006), 427–434.
- Neils, J. (2005). 'With noblest images on all sides': The Ionic frieze of the Parthenon. In J. Neils (Ed.), *The Parthenon: From antiquity to the present* (pp. 198–223). Cambridge: Cambridge University Press.
- O'Connell, M. E., & Alevras-Chen, M. (2007). Rethinking the remedy of return in international art law. In R. F. Rhodes (Ed.), *The acquisition and exhibition of classical antiquities: Professional, legal, and ethical perspectives* (pp. 95–113). Notre Dame: University of Notre Dame Press.
- O'Hare, M. (2015). Museums can change—will they? *Democr*, 36. <http://www.democracjournal.org/36/museums-can-change-will-they.php>. (Accessed 29 June 2022).

- Payne, E. M. (2019). 3D imaging of the Parthenon sculptures: An assessment of the archaeological value of nineteenth-century plaster casts. *Antiquity*, 93, 1625–1642. <https://doi.org/10.15184/aqy.2019.179>
- Pitilakis, K., Karafagka, S., Karatzetzou, A., Riga, E., Manakou, M., & Eleftheriou, V. (2022). How safe is Acropolis of Athens and its monuments to low probability earthquakes? In R. Lancellotta, C. Viggiani, A. Flora, F. de Silva, & L. Mele (Eds.), *Geotechnical engineering for the preservation of monuments and historic sites III* (pp. 713–724). London: CRC Press.
- Plott, C. R., & Zeiler, K. (2007). Exchange asymmetries incorrectly interpreted as evidence of endowment effect theory and prospect theory? *The American Economic Review*, 97, 1449–1466.
- Prot, L. V., & O’Keefe, P. J. (1992). Cultural heritage’ or ‘cultural property. *International Journal of Cultural Property*, 1, 307–320.
- Report from the Select committee of the house of commons on the Earl of elgin’s collection of sculptured marbles, &c.* (1816). London: John Murray.
- Results of YouGov poll on Parthenon marbles. November 23 <https://yougov.co.uk/topics/travel/survey-results/daily/2021/11/23/9b053/2>, (2021)–. (Accessed 30 June 2022).
- Robertson, G. (2019). *Who owns history? Elgin’s loot and the case for returning plundered treasure*. London: Biteback Publishing Ltd.
- Roth, A. E. (2007). Repugnance as a constraint on markets. *The Journal of Economic Perspectives*, 21, 37–58.
- Rudenstine, D. (2001). A tale of three documents: Lord Elgin and the missing, historic 1801 Ottoman document. *Cardozo Law Review*, 22, 1853–1883.
- Rudenstine, D. (2021). David. Trophies for the empire: The epic dispute between Greece and England over the Parthenon sculptures in the British museum. *Cardozo Law Review*, 39, 377–505.
- Saltzman, C. (2021). *Plunder. Napoleon’s theft of veronese’s feast*. New York: Farrar, Straus and Giroux.
- Senseny, J. R. (2021). The architectural origins of the Parthenon frieze. *Journal of the Society of Architectural Historians*, 80, 12–29.
- Servi, K. (2011). *The Acropolis, the Acropolis museum*. Athens: Ekdotike Athenon SA.
- Smith, A. H. (1916). Lord Elgin and his collection. *Journal of Hellenic Studies*, 36, 163–372.
- Smith, H. (2021). Boris Johnson’s zeal to return Parthenon marbles revealed in 1986 article,” the Observer. December 18 <https://www.theguardian.com/artanddesign/2021/dec/18/boris-johnsons-zeal-to-return-parthenon-marbles-revealed-in-1986-article>. (Accessed 30 June 2022).
- Smith, H. (2022). *Time has come for UK to return Parthenon marbles, says Greek PM*. The Guardian. January 10, 2022 <https://www.theguardian.com/artanddesign/2022/jan/10/time-has-come-for-uk-to-return-parthenon-marbles-says-greek-pm>. (Accessed 29 June 2022).
- Clair, W. St. (1998). *Lord Elgin & the marbles* (3rd ed.). Oxford: Oxford University Press.
- Stamatoudi, I. (2016). Alternative dispute resolution and insights on cases of Greek cultural property: The J.P. Getty case, the Leon Levy and Shelby white case, and the Parthenon marbles case. *International Journal of Cultural Property*, 23, 433–457.
- [5] *The statutes of the United Kingdom of Great Britain and Ireland, 56 George III.* (1816). London: His Majesty’s Statute and Law Printers.
- [120] The Guardian view on the Parthenon marbles: Not just a Brexit sideshow. (2020). The Guardian, February 23, 2020, <https://www.theguardian.com/commentisfree/2020/feb/23/the-guardian-view-on-the-parthenon-marbles-not-just-a-brexite-sideshow>. (Accessed 30 June 2022).
- Throsby, D. (2010). *The economics of cultural policy*. Cambridge: Cambridge University Press.
- Total population by country 2022, world population review. <https://worldpopulationreview.com/countries>. (Accessed 29 June 2022).
- UK House of Commons. (2000). *Select committee on culture, Media and Sport, minutes of evidence, examination of witnesses (questions 547 - 559)*, 5 June <https://publications.parliament.uk/pa/cm199900/cmselect/cmcmds/371/0060505.htm>. (Accessed 30 June 2022).
- UNESCO. (1954). *Hague convention for the protection of cultural property in the event of armed conflict*. https://en.unesco.org/sites/default/files/1954_Convention_EN_2020.pdf. (Accessed 29 June 2022).
- UNESCO. (1970). *Convention on the means of prohibiting and preventing the illicit import, export and transfer of ownership of cultural property*. http://portal.unesco.org/en/ev.php-URL_ID=13039&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 29 June 2022).
- UNESCO. (2022). Report of the secretariat on the follow-up to the recommendations and decisions adopted during the twenty-second session, intergovernmental committee for promoting the return of cultural property to its countries of origin or its restitution in case of illicit appropriation. <https://unesdoc.unesco.org/ark:/48223/pf0000381584.locale=en>. (Accessed 29 June 2022).
- Vieira, A. (2019). *On the rock*. Chicago: Soberco Press.
- Vlassopoulou, C. (2016). *Dissecta membra*: The dismemberment and dispersal of the Acropolis antiquities, by A. Mantis (1997) reviewed in light of recent discoveries by C. Vlassopoulou. In F. Mallouchou-Tufano, & A. Malikourti (Eds.), *200 Years: The Parthenon marbles in the British museum, new contributions to the issue* (pp. 22–51). Athens: The Society of Friends of the Acropolis.
- Wadsworth, T. (2022). *The advantages of giving up: Greece and the futile quest to force the Parthenon marbles home by judgment*. forthcoming: Columbia J. of European Law. <https://doi.org/10.2139/ssrn.3948261>. February 3.
- Waterfield, R. (2004). *Athens: From ancient ideal to modern city*. New York: Basic Books.
- Waxman, S. (2008). *Loot. The battle over the stolen treasures of the ancient world*. New York: Times Books.
- Wichmann, A. (2021). Lord Elgin’s shipwreck yields impressive discoveries, Greek Reporter. December 3, 2021 <https://greekreporter.com/2021/02/01/lord-elgins-shipwreck-yields-impressive-discoveries/>. (Accessed 29 June 2022).
- Wolkoff, J. S. (2010). Transcending cultural nationalist and internationalist tendencies: The case for mutually beneficial repatriation agreements. *Cardozo J. of Confl. Resolut.*, 11, 709–738.
- Woodford, S. (1981). *The Parthenon*. Cambridge: Cambridge University Press.
- World city populations 2022, world population review. <https://worldpopulationreview.com/world-cities>. (Accessed 29 June 2022).