Shades of Gray: Product Differentiation in Antiquities Markets

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Abstract
The market for antiquities is characterized by quality uncertainty in two senses. First, most market participants cannot distinguish between genuine antiquities, fakes, and forgeries. Second, it is difficult to identify stolen, looted, and illegally circulating artifacts. Trading in high-quality antiquities thus requires solving an Akerlofian lemons problem in two dimensions. However, because quality is so opaque, many buyers are indifferent to one or both dimensions. This creates what might be termed a lemons opportunity: entrepreneurs create institutions to maintain separate platforms for trading artifacts of different quality profiles. We analyze the private for-profit governance that facilitates transactions in eight submarkets and protects them from criminality, opportunism, and law enforcement.

Keywords: antiquities, cultural-heritage crime, private governance, Akerlof, institutional economics

I. Introduction

The highly publicized trouble of the Museum of the Bible in Washington, DC, paints a dire picture of the market for antiquities. In a massive and sustained buying spree, the Green family spent a fortune acquiring thousands of ancient artifacts. Hundreds were later proven to have been looted from conflict zones, illicitly excavated, or stolen from museums, churches, or university collections (National Public Radio 2020). Equally embarrassingly, the collection was revealed to be riddled with fakes and forgeries—including one of the museum's key exhibits: its entire collection of Dead Sea Scroll fragments (Shugar et al. 2019). After fighting and losing several restitution and repatriation claims, the museum eventually decided to give up all artifacts that lacked full and legitimate provenance. After this massive clear-out, only one cuneiform inscription, fifteen papyrus fragments, and six further objects dating to before AD 500 remained in the collection's public catalog in 2022.

We should not be surprised. There is a huge academic literature on art- and cultural-property crime spanning archaeology, law, the physical sciences, and criminology (for example, Hufnagel and Chappell, 2019, Kila and Balcells 2015). With demand far outstripping the supply of genuine, legally excavated, and legitimately exported antiquities, theft, looting, and smuggling are rife and have become a huge threat to the world's archaeological heritage (for example, Brodie and Tubb 2002; Mackenzie et al. 2019; Manacorda and Chappell 2011). There is also a centuries-old tradition of plugging supply gaps by producing copies and forgeries, using ancient materials to produce (more or less) sophisticated fakes, and selling copies of ancient artifacts with fake provenance (for example, Craddock 2009; Yates 2015). The Museum of the Bible is perhaps an outlier, but it is far from alone in finding suspect material in its collection (La Niece 2009; Gamble 2002; Stanish 2009).

The market for antiquities is often described as a gray market, meaning that it is hard to assess whether the goods on offer are legal or illegal, ethical or unethical, and fake or genuine (Mackenzie 2005; Bowman 2008; Mackenzie and Yates 2016a; Sotiriou 2018). In the past, few collectors valued and therefore kept provenance records. A general lack of documentation makes it difficult to distinguish recently looted, illicitly excavated, or smuggled artifacts from those that have circulated in the Western antiquities market for decades or even centuries. This uncertainty also creates contestation over what is ethical in the antiquities trade. The law is neither a firm nor useful basis for determining ownership, as laws vary between jurisdictions. Statutes of limitation and prescription periods for bona fide purchases vary among countries (and among US states), so the legal classification of objects varies over time and across space (Klerman and Shortland 2022). Looted objects can thus be laundered over multiple transactions in different jurisdictions (Mackenzie and Yates 2016). Finally, ancient, antique, and contemporary artifacts may all be offered as antiquities but are difficult to tell apart (Yates 2015). In some cases—such as copies made in the distant past or ancient objects modified to meet contemporary tastes—it can be hotly contested whether an object should be considered genuine, fake, or partially fake (Dedieu Grasset 1998).

How does the antiquities market operate in the presence of these profound information problems? Although most collectors are unable to judge the authenticity or legitimacy of ancient artifacts, uncertainty over quality has not undermined the trade in objects purporting to provide a tangible link with the past. Collectors appear remarkably resilient to public concerns about heritage crime.[1] Moreover, the market constantly shrugs off government efforts from both source and market countries to enforce international and domestic laws protecting cultural heritage. The 2021 out-of-court settlement of hedge fund billionaire Michael Steinhardt, who agreed to return $70 million of loot and forgo collecting antiquities for life, illustrates that careless collecting can become a serious social and financial liability (CNBC 2021). We therefore examine the ways in which the market for antiquities functions in the face of significant risks: spending one's money on essentially worthless replicas, facing public censure for owning so-called blood antiquities, having one's assets seized by law enforcement, and perhaps even facing criminal charges.

Because of its pervasive information asymmetry, the antiquities market can be seen as an example of the lemons problem analyzed by Akerlof (1970) in the context of the market for used cars. In Akerlof's paper, buyers of used cars can only distinguish between functional cars ("peaches") and worn-out cars ("lemons") after purchase. Akerlof shows that if buyers respond by offering the expected average value of cars in the market, sellers of peaches withdraw, leaving only lemons in the market. However, as Akerlof points out, political and commercial entrepreneurs can create institutions to overcome or lessen asymmetric-information problems—such as setting legal or industry standards or building reputations for selling peaches.

In this paper we argue that the market for antiquities differs from the original Akerlof setup in three ways. First, rather than the goods on offer being good or bad, quality is measured on a gray scale. Second, asymmetric-information problems occur in two quality dimensions: authenticity (whether an object is of a specified period and origin) and legitimacy (whether the source country can make a legal or moral claim for repatriation). Third, on the demand side, different buyers put different emphases on authenticity and legitimacy depending on their social context. Nonetheless, the original insight of Akerlof (1970) holds: asymmetric information can be overcome by private for-profit institution building. We argue that the market for antiquities thrives

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[1] Heritage crime is any offense that damages the value of ancient assets and their settings, such as looting, illicit excavation, defacement, theft, or diluting the historical record with forgeries and fakes.

because entrepreneurs successfully partition the market to serve the quality preferences of different groups of buyers.

The first contribution of this paper is to conceptualize the antiquities market in two dimensions of quality uncertainty. We propose that different trading platforms could theoretically offer artifacts with distinct quality profiles to cater to different types of buyers. Second, we examine how market makers in eight segments of the quality spectrum maintain such market segmentation in practice. We observe a wide range of institutional designs that successfully support extreme price differentials between submarkets claiming to offer objects of different shades of gray. We leave the full institutional analysis of these markets to future research but offer some tentative policy conclusions for those seeking to protect the world's archaeological heritage.xs

II. A Two-Dimensional Model of the Quality of Antiquities

For any type of antiquity, we can find artifacts in multiple markets at very different price levels. For example, on eBay, faience-bead necklaces sold as "Rare Antique Ancient Egyptian" retail from less than ten to up to a few hundred dollars. At shops associated with the International Association for Dealers in Ancient Art or the Association of Art and Antiques Dealers, jewelry in ancient-Egyptian style retails for hundreds or thousands of dollars. At Christie's and Sotheby's, Egyptian-style faience jewelry is sold as "wearable art" at prices ranging from thousands to tens of thousands of dollars. What quality differences explain this market segmentation, and—in the presence of quality uncertainty—what norms, processes, and assurances underpin and justify price differentials of several orders of magnitude?

The market for antiquities is a market of status and esteem as well as profitability (Mackenzie and Yates 2016b). People prize antiquities for a mixture of properties. First, collectors gain social status from owning objects that are decorative, fashionable, or (relatively) rare and hence deemed important. Second, antiquities buyers seek objects that provide a tangible link with a specific time and place or specific person; that is, authenticity is valued (Yates 2015). Third, antiquities need legitimacy (in the sense that source countries cannot make a legal or moral restitution claim) if they are to serve as stores of value, as investments, or as loans or (tax deductible) donations to museums. The total value of an object depends on a combination of these attributes.

Beauty and rarity do not pose significant information challenges. Buyers know what they like and what is currently fashionable. They can find out relatively easily how rare (genuine) objects of a specific type are from dealers, museum catalogs, museum curators, or internet searches. However, the dimensions of authenticity and legitimacy present asymmetric-information problems: it takes significant expertise to date an antiquity to a specific period and identify its geographic origin. It is often impossible to reconstruct when or how objects found their way into the Western antiquities market. Sometimes only the original forgers, tomb robbers, smugglers, or dealers know the true origins of an artifact. Unfavorable information is lost over time or becomes less relevant with each consensual sale.

A. Authenticity and Legitimacy on a Gray Scale

An object's authenticity might be considered binary: an object either is or is not from the period and location claimed by the seller. However, in practice it can be extremely difficult to ascertain (Yates 2015). Ancient objects that are documented as having been scientifically excavated from a specific archaeological site and stored in a secure location ever since will score highly on perceived authenticity (for example, the bust of Nefertiti in the Neues Museum Berlin). However, such objects are rarely traded on the antiquities market. Mostly, the top of the market trades in artifacts that are recognized by renowned independent experts (such as connoisseurs, museum curators, and art historians) as being of a particular style and period. In addition, there may be scientific evidence that an artifact has the same age or physical properties as related objects that are accepted as genuine. Yet scientific archaeology is in a constant arms race with innovative forgers trying to beat the latest diagnostic methods (Craddock 2009). The quality of expert opinions and scientific evidence varies widely. Not every expert is truly independent. And a certificate of authenticity can be faked or forged. Authenticity can thus be modeled as being on a gray scale with the highest scores given to objects whose authenticity is supported by a wide consensus of renowned experts in the field.

Legitimacy is about whether a restitution claim might succeed—either in court or because ownership becomes a reputational liability for the collector in a trial of public opinion. Legitimacy thus has both legal and moral aspects. Formally, cultural heritage has been protected by national vesting laws, which grant ownership of all ancient sites to source-country governments. However, historically, these laws were often flouted by governments themselves. Cultural artifacts were given as diplomatic gifts, openly sold to tourists, or exported without paperwork. The antiquities market therefore considers the UNESCO Convention of 1970 as the watershed moment. Antiquities that were acquired before this date are generally considered legitimate (Brodie 2014a). The moral dimension of legitimacy is about preserving archaeological heritage until it has been formally excavated and studied and giving source countries control over the revenues accruing from the exploitation of their cultural treasures (Brodie and Tubb 2002). Very few antiquities stemming from licensed scientific archaeological excavations with formal export licenses meet this moral-legitimacy criterion.

The gray nature of legitimacy arises because most antiquities lack evidence detailing their precise origins. Previous generations of collectors never obtained or did not seek to preserve export licenses, bills of shipping, or sales receipts. Matters did not necessarily improve when objects were traded on the Western market. Sellers routinely disguise their identity from buyers when selling in auctions or through dealers. Most objects are sold with vague and impossible-to-verify provenances, such as "from a Swiss private collection" or "North London collection, acquired in the 1980s." This market norm of opacity makes illicit artifacts practically indistinguishable from most legally circulating artifacts. It is rare to be able to verify an artifact's complete chain of title, though some may have partial provenances. Examples of a partial provenance are objects that can be seen in published photographs (for example, in the British publication *Country Life*, featuring aristocratic homes) or collection and auction catalogs. The legitimacy gray scale thus ranges from recently looted artifacts with no record of a previous legitimate sale, to objects with a partial provenance, to objects with a complete and legitimate provenance.

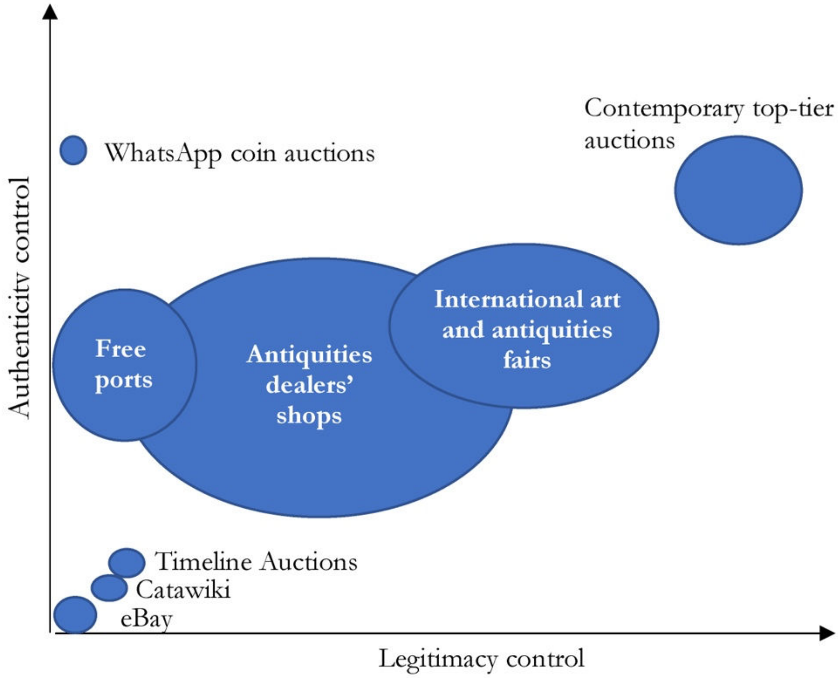
B. Partitioning the Market

Not all quality dimensions are equally relevant to all buyers. For example, major public museums, the philanthropists planning to donate their collections to them, and art investors need authentic artifacts with morally and legally watertight property rights. Passionate collectors with smaller budgets seek authentic objects but may be willing to overlook legitimacy issues in their hunt for a key object to complete their collections. Yet another group of buyers seek decorative objects that appear authentic to their peer group; thus, fakes and forgeries serve a purpose if they are considered good enough in their owners' social context.[2] If buyers have no interest in the truth, legitimacy and authenticity cease to matter. This explains the ubiquity of poorly made trinkets sold "surreptitiously" near tourist attractions and on the internet. Returning to the language of the Akerlof (1970) paper, we are dealing with a market in which—at the right price—there is demand for both lemons and peaches. In addition, buyers have tastes for both sweet and sour peaches, and some like sweet lemons while others find sour lemons refreshing. Even forbidden fruits find takers if the risk of criminal charges, convictions, and repatriation claims is sufficiently low.

In the following section we examine how private entrepreneurs have separated the market for antiquities into distinct submarkets for trading different qualities. Figure 1 shows eight trading platforms in the authenticity and legitimacy spectrums. The axes indicate how well institutions control problems of authenticity and legitimacy. To maintain price differentials between submarkets, dealers and market makers (such as auction and fair organizers) must tackle two problems. First, there is a lemons problem: preventing the contamination of their market segment with lower-quality goods and preventing the flight of higher-quality goods to a higher-priced alternative market. Second, in markets in which illicit or fraudulent artifacts are traded, additional barriers are needed to reassure buyers and sellers that they are safe from law enforcement.

[2] Demand for fakes can save archaeological heritage when tomb robbers find that manufacturing artifacts is more profitable than excavating them (Stanish 2009).

Figure 1. Submarkets in authenticity/legitimacy space



III. Creating and Maintaining Submarkets for Antiquities

In this section we describe and evaluate eight approaches to trading antiquities. We focus on markets, market makers, and trading platforms serving collectors, rather than looking at markets in which dealers may source (illicit) antiquities—for example, the darknet (Paul 2018), messaging apps, or auction websites (Kantchev 2017). We do not provide an exhaustive survey of all trading platforms but consider relevant examples from across the legitimacy and authenticity spectrums (see figure 1), such as in-person auctions, online auctions, mixed auctions, and face-to-face trades. Most submarkets merit a more detailed institutional analysis than we can provide in this paper, which we leave for future research.

We observe five distinct types of institution-building activities that are engaged in in different combinations in the various market segments: first, creating processes to exclude objects that do not meet the legitimacy requirements of the relevant market segment; second, creating processes to reassure buyers that artifacts meet the authenticity criteria of the submarket; third, building norms and processes for reversing transactions should objects turn out to be unsatisfactory after a sale; fourth, the creation and propagation of alternative value systems to build and maintain demand for illicit objects; fifth, institutions that shield sellers, buyers, and owners from law enforcement.

A. International Top-Tier Auction Houses

International auction houses such as Sotheby's and Christie's serve the top end of the market. Buyers look for the highest quality on all value dimensions. Control of problems of authenticity and legitimacy occurs at two levels. First, the auction houses employ expert staff that scrutinize all objects and their provenance before consignment. In case of doubt, they often bring in further external expertise (academic, museum, or professional) before rejecting or accepting an object for sale (Shortland and Shortland 2020). All objects are routinely checked against the stolen-art databases of the Art Loss Register and Interpol to ensure that there are no former owners actively searching for the artifacts (Shortland 2021).

The second stage facilitates public scrutiny of objects before each sale: auction catalogs provide detailed information, the objects are publicly displayed, and prospective buyers have the option of bringing in their own experts to examine the objects and their provenance before bidding starts (Shortland and Shortland 2020). Particularly high-value objects may be displayed in multiple countries, reassuring buyers that they are freely exportable. If serious concerns about an object's authenticity or legitimacy are raised, it is withdrawn from sale until the problem has been thoroughly investigated. Should an object prove to be a fake or forgery after the sale, the auction houses have warranties in place to cancel the sale and return the buyer's money up to several years after the sale (and they have a reputation for doing so even beyond this period) if the problem arose because of a due diligence failure.

Ex ante control of legitimacy problems may seem less robust than control of authenticity problems: many highly desirable antiquities do not have a clean provenance going back to before 1970—and in New York even that may not be enough if the source country had vesting laws in place before the artifact was taken.[3] Prime auction houses have had objects seized from display by the authorities, become embroiled

[3] For example, the Persepolis Relief was seized and returned to Iran despite having been publicly exhibited in Montreal for decades prior to an attempted sale in New York in 2017.

in legal disputes, or conducted sales attracting significant opposition from the media, source countries, and demonstrators. However, conducting an auction in a common-law country (and particularly in New York) can be interpreted as an institutional solution for bringing legitimacy issues to the fore. If a public sale succeeds in a location with strong legal protection for original owners, the new owner is secure in their property right. By contrast, sales in jurisdictions that favor good faith owners may subsequently be challenged in higher-quality jurisdictions (Klerman and Shortland 2022).

Unlike the other submarkets analyzed below, the top auction houses thus protect buyers from legal complications by inviting formal scrutiny of sales, rather than attempting to keep the police out. Public opposition, seizures of objects, and court cases present a significant reputational cost to auction houses. Thus, Christie's and Sotheby's have become ever more careful about auctioning antiquities, withdrawing to the very top end of the market, where large commissions on successful sales justify closely managed reputational risks (Shortland and Shortland 2020).

There are two caveats to this conclusion. First, until the early 1990s, auction houses had at best a no-questions-asked attitude to legitimacy, and on occasion they even facilitated the smuggling and laundering of artifacts (Watson 1997). The current cautious stance on legitimacy is the result of a long series of scandals and public relations disasters. Sales before 2000 thus do not serve as a reliable signal of quality. Second, major auction houses have found a way of monetizing their excellent reputation for controlling authenticity problems to sell objects of doubtful legitimacy. If a desirable object's provenance is not expected to stand up to public scrutiny at auction, the auction house may still broker a private sale between interested parties. However, it should be understood by the buyer that such objects are best enjoyed in private. The public display of the Gilgamesh Tablet in the Museum of the Bible was thus a risky decision, as it was acquired in a private rather than a public sale (Reuters 2020).

B. WhatsApp Rare-Coin Auctions

The popular messaging app WhatsApp serves as a platform for discreet, closed-group rare-coin auctions, which regularly take place in Gulf and Middle Eastern countries.[4] In this market the beauty,

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[4] One of the authors of this paper is an antiques dealer and a member of some of these WhatsApp groups.

historical importance, and authenticity of the coins are valued, but collectors are largely indifferent to their provenance. WhatsApp is used to securely transmit text, audio, photographs, and videos within invitation-only groups. Messages are encrypted and can only be read by the intended recipients. Numismatic auctions on WhatsApp thus operate as members' clubs (Stringham 2016). Information about available objects and bidding is restricted to a highly select membership—usually drawn from larger WhatsApp forums in which collectors, experts, and dealers share and discuss their pieces. New members are proposed and vetted by existing members. The main criteria for acceptance are the ownership of a significant collection, running an established, reputable dealership or auction house, and scholarly expertise. Membership is thus highly prestigious.

The auction groups provide valuable club goods for both buyers and sellers. Collectors use auctions to display their wealth and connoisseurship to their peer group. They derive social status from placing winning bids on rare, well-preserved pieces of historic importance, thereby signaling their scholarship, wealth, and refined taste (Gambetta 2009). Dealers thus obtain excellent prices in these auctions, as club members are fiercely competitive and face few financial constraints. The clubs' internal value system focuses on the "higher values" of connoisseurship and collectors' passion (Mackenzie and Yates 2016a). The archaeological heritage that is destroyed or jumbled in the hunt for rare coins is simply not discussed. A coin's provenance is only disclosed if a former owner (for example, royalty or a celebrity) enhances its value by prestige of association. Authenticity, however, is paramount and closely monitored both by the club membership and the wider numismatic forums. With collectors keen to display their treasures to jealous peers, peddlers of fakes and forgeries must constantly fear exposure.

The result is a high-price market for genuine but mostly illicit artifacts that is unobservable to law enforcement. The high value of club membership and the extreme ease of removing errant members from a WhatsApp group mean that the (implicit) threat of suspension tightly constrains opportunistic behavior and ensures prompt rectification of any mistakes. In terms of institutional design, these are hugely successful clubs, meeting their membership's aims at minimal cost (Stringham 2016).

C. Freeports

Freeports are specially designated areas—usually in the vicinity of ports or airports—where a country's normal tax and customs rules do not apply. They allow people and (shell) companies to store valuable assets legally, securely, and often anonymously. Imports can enter freeports with minimal or simplified customs declarations (Gatenby 2021). As long as assets remain inside, they are invisible to the authorities. Freeports have developed into important hubs for the high-end art trade because valuable objects can be stored securely or shown to interested dealers, connoisseurs, experts, investors, and collectors in specially designed viewing rooms (*Art Newspaper* 2020). The world's most famous freeport facility—in Geneva—is said to contain more than a million artworks (*New York Times* 2016).

Unless the police obtain a search warrant for a specific vault, freeports are inaccessible to law enforcement, who cannot conduct speculative searches. The setup is thus ideal for selling stolen and looted art and creating provenances with a veneer of legitimacy through a series of sales behind closed doors. Vibrant markets within freeports make it almost impossible for outsiders to trace where an artifact came from, who currently owns it, and whether it was ever acquired in good faith. The vast number of ancient artifacts seized in just a few hauls from the Geneva Freeport and the lawsuits relating to antiquities dealers such as Giacomo Medici, Robin Symes, and Robert Hecht demonstrate the crucial role freeports have played in facilitating trade in illicit antiquities (Watson and Todeschini 2006; New York District Attorney 2021).

However, freeports provide no more than a secure place for trading whatever their clients choose to store or exhibit inside them. In terms of controlling authenticity and legitimacy problems, it is a case of caveat emptor. Collectors who want to buy directly from a freeport have a trust relationship with the dealer or an eyes-wide-shut attitude, or they instruct their own experts to inspect the artifacts in the viewing rooms. Freeports do not actively promote social norms favoring illegality. However, by creating facilities for the super-rich to avoid taxes and customs controls and permitting the use of shell companies to disguise their ownership of disputed artworks, they may contribute to a sense that some people are above the law.[5]

[5] See, for example, the case of Maestracci v. Helly Nahmad Gallery Inc. (155 A.D.3d 401 (N.Y. App. Div. 2017)) over a looted Modigliani painting hidden in the Geneva Freeport.

D. Antiquities Dealers' Shops

We focus on dealers specializing in antiquities here, although antiquities are also traded in art and antiques shops. As indicated in figure 1, in-person traders occupy a wide area of the authenticity/legitimacy space. They range from the smartest galleries, selling rare and exquisite ancient art to the super-rich, to low-quality backstreet shops. Interested parties can check what is on public display, but dealers may keep certain objects out of view. In terms of quality control, dealers build individual reputations for selling authentic artifacts by examining their objects (more or less) closely and instructing experts for independent evaluations. A dealer's reputation for legitimacy is affected by how much they know about their artifacts' provenance and where they source them. Successfully placing objects in museum collections and exhibitions or selling at international fairs and top auctions also reflects well on a dealer.

In addition, there is a fascinating sustained collective effort to maintain demand for gray products. Antiquities dealers around the world have created various domestic and international associations to tackle the "unjustified accusations of illicit dealing aimed at the trade," such as the International Association of Dealers in Ancient Art, the Antiquities Dealers' Association, and the Association of Art and Antiques Dealers. They take a three-pronged approach to reassuring buyers.

First, they promote social norms that confer status on antiquities collectors. The associations' promotional material invokes "ideals of self-realization and public service" (Mackenzie and Yates 2015, p. 341) to valorize the practice of collecting antiquities. Collecting, displaying, and donating antiquities to museums or universities projects an attractive image: that of passionate, highly educated members of the cultural elite following impeccable, millennia-old traditions. As the International Association of Dealers in Ancient Art puts it: "Since Roman times, collecting of antiquities has made an important contribution to education, and from the 18th to the early 20th century the 'Grand Tour' . . . led to a better understanding of our cultural roots. . . . collecting ancient art is an expression of enthusiasm, passion, and respect for the cultural achievements of our ancestors." Collectors are presented as champions and ambassadors of cultural heritage: "[Collecting ancient art] is also about learning, understanding and preservation—the exact opposite of destruction." And "collectors also play their role in maintaining support for developing scholarship and understanding, as well as preventing public collections from falling into irrelevance and disuse through lack of funding or diminishing interest" (Antiquities Dealers' Association 2023).

Second, there are institutions and processes to deflect criticism. The associations promote a socially acceptable origins story for the antiquities market: "Private collections have formed the core of all collections of ancient art in the great museums. This tradition also resulted in a vast number of antiquities being stored safely in private collections all over Europe, the USA and elsewhere and it is these objects that circulate on the market, becoming available from time to time for other collectors to buy. . . . The members of IADAA [the International Association of Dealers in Ancient Art] trade in ancient objects from private collections that have been on the market for decades, or even centuries, this . . . does not harm archaeology in any way." However, this last claim is not verifiable. Proposals for creating a register of legitimate antiquities have been blocked by the trade. By keeping the legitimate part of the market gray, collectors are invited to disregard their part in any destruction caused by the demand for antiquities exceeding the allegedly vast supply of legitimate antiquities (Mackenzie and Yates 2015).

Third, the associations subscribe to an "ethical code of conduct" or "code of practice" that charges members with the responsibility to work within the relevant legal framework for dealing in cultural property. According to the International Association of Dealers in Ancient Art, "We work with law enforcement and others to prevent crime and campaign vigorously for an open, legitimate trade operating under fair regulations. . . . Our members adhere to the highest professional standards as set out in our stringent code of ethics." In practice, these codes and standards are not designed to spot illicitly excavated antiquities. In civil-law countries there is strong buyer protection for good faith owners. Establishing that no former owner is currently trying to retrieve their property is sufficient to conduct a good faith sale. The most efficient way of discharging this duty is to check whether an artifact is listed as stolen or missing on a public or proprietary database. The International Association of Dealers in Ancient Art says, "Our members undertake due diligence as a matter of course and are obliged to check every object with a sales value over €5,000 with INTERPOL Database of Stolen Art or the Art Loss Register. Your dealings with any member of the association can be made with the utmost confidence."

The problem with this approach is that illicitly excavated cultural property is not known to the authorities in the first place and hence cannot be posted as missing. Only artifacts stolen from museums or well-documented excavation finds are on the lists, so most illicit antiquities are given a clean bill of health by Interpol—making them indistinguishable from legitimate antiquities. Compliance with the codes of practice is therefore not particularly onerous, though occasionally stolen objects surface in searches and must be given up (Shortland 2021, chap. 10).

Once again, we have a solution in which a club creates and governs a submarket. Club membership is only valuable if fellow members are not caught breaking the letter or spirit of the law. Thus, applicants are vetted by a committee and obliged to uphold the relevant association's standard: "Membership is only open to those who meet the Association's requirements as to experience, quality of stock and knowledge of their subject" (LAPADA 2023a). And "all members have agreed to abide by this strict Code of Practice" (LAPADA 2023b). It is not clear from the associations' websites how and for what breaches membership is ended, and as discussed above, the codes of practice leave wide loopholes for incorporating artifacts of suspicious origin into the legitimate market.

However, when the trade's reputation is under fire, collective action seems to be effective. A full exploration is beyond the scope of this paper, but we give two brief examples. First, in 2015, concerned archaeologists revealed that artifacts from war-torn Iraq and Syria had crept into the London antiquities market (The Guardian 2015). Journalists surmised that ISIS was funding war and terrorism with looted antiquities; the system was considered "broken" (*New York Times* 2016). However, the trade reacted decisively, and no further discoveries were made in the London market. Second, the dealer Phoenix Ancient Art, which faced multiple allegations of dealing in fakes and looted art (Herman 2021), is not a member of an antiquities dealers' association but the Art and Antique Dealers' League of America (2023b). The league describes its origins as a "luncheon club" and does not require its members to subscribe to a specific code of ethics or honor (Art and Antique Dealers League of America 2023a).

E. International Art and Antiquities Fairs

International fairs such as TEFAF serve the upper end of the market. High ticket prices, a range of VIP services, and the refined atmosphere of major art fairs give the impression that antiquities collectors are an integral part of the world's cultural elite. Exhibiting at international art and antiquities fairs confers credibility in authenticity/legitimacy space to participating dealers and the artifacts that are traded in them. However, fairs' independent efforts to validate authenticity and legitimacy are limited to spot checks, meaning that the quality of artifacts can be mixed.

Exhibiting ancient artifacts internationally requires export documents. If an object has passed this hurdle, it is a signal of quality for buyers. It is not a perfect signal, as not every artifact is examined in detail by overstretched customs agencies, but it is risky to try to obtain a formal export license for a high-value object with a (deliberately) vague provenance. Moreover, international fairs have vetting committees of varying degrees of expertise and stringency. Every object has some probability of being scrutinized by outside experts such as the Art Loss Register (checking legitimacy) and connoisseurs, art historians, and forensic analysts (checking authenticity). Such external validation adds value above the in-house due diligence conducted by dealers. It is worth looking at the precise vetting arrangements though. How many days of vetting are allocated for how many thousands of objects exhibited at the fair? Who is on the committee, and how independent are they from the trade? Are they doves or hawks in their specific quality dimension? If a problem is spotted on vetting day, is the artifact quietly withdrawn or even left on display—perhaps with a small note that it is under investigation? What power do traders have to challenge or even override expert opinion? The public fallout of being caught with a suspicious object is generally limited; reputational sanctions rely primarily on insider gossip.

On a more positive note, art fairs are accessible to the concerned public and law enforcement. The credibility gain in terms of legitimacy depends on the jurisdiction with New York being the most prestigious location. The Manhattan District Attorney's Office's hawkish stance on antiquities trafficking is well described in its statement of facts in the Steinhardt case: "For more than a decade, this Office has conducted extensive criminal investigations into international antiquities trafficking networks that plunder priceless cultural heritage and traffic antiquities into and through New York. . . . These investigations have resulted in the convictions of 11 traffickers and their co-conspirators; the indictment and pending extradition of another 6 traffickers; the seizure of more than 3600 antiquities valued at more than $200 million. As a result, this Office has returned more than 1500 antiquities to the victims of this pillaging—two dozen countries and individuals—around the globe" (New York District Attorney 2021). Trading antiquities under the nose of the specialist antiquities unit in Manhattan is thus a strong signal of faith in the legitimacy of one's objects.

F. Timeline Auctions

Timeline Auctions conducts regular antiquities and coin sales in the low- to lower-medium-quality range. Buyers can browse the online catalog, and most bid online, but they also have the option to view the objects and participate in traditional rostrum auctions. On a typical auction day, Timeline shifts between five hundred and seven hundred lots with price estimates ranging from less than £100 to around £10,000 (Timeline Auctions 2023a). Items with an upper estimate of greater than £1,000 are searched against the Art Loss Register (Timeline Auctions 2023b), but most objects remain below this threshold. In a typical catalog entry, the provenance is a single line. In many cases, the provenance is obscure (for example, "Ex North London gentleman; formerly in an early 20th century collection"); in others, the provenance raises a red flag of a potential violation of UNESCO rules (for example, "Property of a London collector, acquired early 1990s"). Timeline explicitly warns buyers that it "does not make or give any guarantee, warranty or representation or undertake any duty of care in relation to the . . . [objects'] provenance" and that "the principle of caveat emptor applies" (Timeline Auctions 2023b). Timeline merely facilitates the sale if buyers are willing to proceed based on the information provided.

Timeline Auctions therefore does not provide independent due diligence but enables experts (and law enforcement) to conduct their own research. Timeline Auctions is legally registered in the UK and has its base in Harwich (Essex). Many of its auctions are conducted in prestigious (rented) locations in London. With objects being physically consigned to the auction house, buyers can inspect objects before the sale to look for telltale signs of contemporary manufacture and for seizing illicitly excavated or traded objects. However, a full forensic analysis is relatively expensive, and well-made and expertly aged objects may well pass a superficial stylistic inspection (Stanish 2009). Minor artifacts whose precise origin would be difficult to prove (and that might in any case be fakes or forgeries) generally remain below the radar of law enforcement. However, the setup attracts some informed collectors and savvy dealers looking for (misclassified) bargains, who occasionally get into fierce bidding wars over objects they consider genuine (for example, *Antiques Trade Gazette* 2020).

G. Catawiki

We examine Catawiki as an example of an online-only auction platform dealing in relatively attractive objects with minimal assurance on authenticity and legitimacy. Catawiki (2023a, article 4) adopts a similar hands-off approach to provenance as Timeline Auctions: "Catawiki plays only a facilitating and supporting role, by offering an online platform and supplementary services." Formed in 2008 in Holland, its inventories are placed online by dealers, from which its employees regularly curate online auctions to suit specialist collector interests in categories such as "Archaeological Finds and Remains." The auctioneer and experts designated to run a specific auction rely entirely on the photos and information provided by the sellers. Importantly, the objects themselves remain with the sellers until the auction is concluded and are then delivered to the address specified by the buyer.

Transactions occur in a legal gray zone: buyers and sellers are in many jurisdictions with different rules. Catawiki merely requires sellers to affirm that they have acquired the lot in a legal manner and that they have a legal right to sell the item. Lots estimated to be worth over 5,000 euros are checked with the Art Loss Register.[6] Buyers are held responsible for obtaining the necessary documentation for import. Further, "sellers and buyers are expected to take all reasonable steps to guarantee the lawfulness of what they buy and sell, so as not to contravene the [UNESCO] Convention" (Catawiki 2023b). Nobody monitors how sellers deliver the object, but postal services tend to offer surprisingly efficient shipping services for illicit goods, as they are barely monitored.[7] Catawiki holds the buyer's money in escrow for fourteen days after delivery, which is returned to the buyer if they can prove that the object is not exactly as described by the seller. Collecting the necessary evidence to prove a complaint before Catawiki completes the transaction and releases the money is likely to be a logistical challenge.

Should a third party seek restitution of an object, Catawiki makes it extremely difficult to succeed. Spotting a specific object when it comes up for sale would require constant vigilance. Auctions are held weekly, and the objects are only advertised for seven to ten days before the sale. Records of items sold are only accessible for a few days after the end of each auction, and after that point, one cannot search

[6] As noted above, the Art Loss Register cannot register illicitly excavated antiquities, as the owner has to provide photographs of the object.

[7] This is also the case for drugs purchased on the darknet. See, for example, *Guardian* (2019).

for them on the website or through the app. It is also difficult to find past auction records through internet search engines.[8] With an average of fifty thousand objects sold through Catawiki every week, monitoring sales would be very time intensive (Gomez 2019). Catawiki also prevents direct communications between sellers and interested parties. If someone tries to investigate an item's provenance or legality, Catawiki's customer service sends a generic reply. Catawiki then contacts the auctioneer, expert, or seller on the prospective buyer's behalf. However, with no more than ten days between the initial advertisement and the auction, sellers can prevaricate with vague answers and run down the clock. Once an item has been sold, the messaging threads are closed to all but the successful bidder.

Catawiki auctions are curated by supposed experts and nominally conducted by an auctioneer, and the platform has an arrangement with a Dutch notary to verify auction proceedings. This setup provides a veneer of legitimacy without meeting any of the due diligence standards typically required of auction houses. The short period in which records are publicly accessible, the near impossibility of raising and resolving queries, the blind eye turned to suspicious materials and dates, the very limited after-sale liability, and the passing of responsibility for all items onto vendors and buyers provide perfect cover for the sale of illicit and fake goods.

H. eBay

Individuals have listed artworks and antiquities on eBay auctions since at least the first years of this century. The (very broad) search category "Antiquities, ancient" had more than ninety-seven thousand listings in August 2022, ranging in value from a few cents to hundreds of thousands of dollars. eBay does not guarantee the legitimacy or authenticity of objects sold on its website but refers buyers to the relevant domestic consumer-rights legislation. The UK consumer-rights act requires the objects sold to be "as described" (eBay UK 2023a). Fay's (2011) analysis of eBay trading shows that the company toughened its stance on suspicious sellers from 2009 onward. Thus, beyond the listings' top line—which still describe objects as ancient—sellers have become remarkably cautious about their claims regarding authenticity and legitimacy. After-sales problems are resolved directly between buyers and sellers. Proving that objects are fakes is more

[8] One would have to search for individual records by keywords, by Google Images search, or via Pinterest.

expensive than most of the objects are worth, making formal guarantees meaningless (Stanish 2009). However, most sellers offer a full no-quibble returns policy for a specified period. The incentive to resolve issues promptly and satisfactorily is reputational. If a problem is resolved by the seller, a disappointed buyer cannot leave negative feedback. As potential buyers use the seller's percentage of positive feedback to predict the likely quality of their own experience, most sellers prefer to reverse sales that would undermine their rating.

On the quality of antiquities for sale, Stanish (2009) finds that Peruvians initially supplied illicitly excavated archaeological finds for the budding online market for pre-Columbian art but soon found that it was more efficient to manufacture forgeries. He estimated that by 2004, in his area of specialism, 95 percent of eBay offerings fell into the latter category. eBay has thus become the platform for trading legitimate but common and unattractive objects[9] as well as more attractive objects that are mostly forged or fake (Brodie 2014b). Yet the market operates satisfactorily despite this. The private monitoring website Ancient Artifakes provides warnings about sellers of fakes on eBay and about businesses who operate under multiple names to disguise the extent of their illicit trading, and it offers a top-ten ranking of the most egregious fraudsters. Yet most sellers have close to 100 percent positive feedback—with buyers praising fast delivery of objects that look as described. This indicates that buyers happily pay lemon prices for lemons. If they are deceived, they are willingly deceived: some people prefer objects that purport to be antique to correctly identified copies (Brodie 2014; Fay 2011).

IV. Discussion

Table 1 summarizes the institutional features of the different market segments. Some markets thrive on being open; others prosper because they are invisible, opaque, or below the radar. There is a meaningful trade-off between creating institutions for controlling legitimacy problems and hiding from the law at the top of the market but a slighter trade-off at the bottom, where low market values do not justify strict law enforcement. Authenticity is crucial at the top of the market but increasingly irrelevant as one moves toward the bottom. The considerable collective and individual efforts to valorize collectors' motives and actions, deflect and neutralize criticism, and ward off

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[9] For example, properly labeled replicas and amateur metal detectorists' base-metal coins.

feelings of guilt at the top of the market are so successful that no further actions to promote antiquities are required at the bottom of the market. Platforms such as eBay, Catawiki, and Timeline Auctions benefit from others' institution-building efforts: they serve a ready market rather than building one.

The greater buyers' faith in the institutions underpinning a specific market segment and the more effective the institutions are at restricting supply, the higher the prices. But large price differentials between markets make it profitable to source objects in low-quality markets and resell them in more prestigious ones. Some of this private enterprise is legal: connoisseurship and scientific expertise allows entrepreneurs to rehabilitate genuine antiquities once traded in online auctions or junk shops. Objects can also be rehabilitated by reuniting them with their lost provenance—such as evidence that they were included in a private or public collection or auction prior to 1970. Yet market makers are also in a constant battle against criminal suppliers and opportunistic insiders attempting to resell low-quality items in higher-quality markets. Looters, traffickers, and forgers and other fraudsters are becoming ever more sophisticated in their efforts to enlarge supply. Maximizing profits while maintaining the trust of collectors is a dynamic problem that needs constant reevaluation and institutional innovation.

Table 1. Institutional features of antiquities submarkets

	Access for law enforcement	Controlling legitimacy problems	Controlling authenticity problems	Buyer protection	Social norms
ßPremier auction houses	Open	Application of formal law plus some moral consideration	Strong: in-house and outside expertise	Strong: formal warranties and reputation	Status of owning museum-quality pieces and/or philanthropic donations
WhatsApp	Invisible	None	Strong club governance	Strong club governance	Higher values
Freeports	Inaccessible	Very limited (on entry)	Caveat emptor	None	Outside the law
Dealers	Mostly open but some hidden transactions	Minimum standards for club members; club governance	Individual reputation; club governance	Individual reputation; formal law; (weak) club rules	Higher values; reasonable doubt
International art fairs	Open access	Vetting committee; customs documents	Vetting committee	Dealer reputation; formal law	Cultural elite
Timeline Auctions	Open but high volume, low value	Buyer due diligence possible	Weak	Weak: seller reputation	None
Catawiki	Open but deliberately opaque	Very limited due diligence	Weak	Limited: escrow	None
eBay	Open but largely below the radar	Very weak	Very weak	Seller reputation	None

V. Conclusions

For scholars of institutions, the market for antiquities provides a range of fascinating examples of private, for-profit governance. Market makers, collectors, and sellers are in a constant battle against criminality and opportunism, which arise from both inside and outside their community. The high prices paid for antiquities at top New York auctions suggest that buyers trust the institutional safeguards controlling problems of legitimacy and authenticity in this market segment. Buyers do not just pay for beautiful and rare ancient artifacts;

they also buy peace of mind. But every step away from the top of the market brings significant risks if the collection ever becomes subject to public scrutiny.

The cases of Michael Steinhardt and the Museum of the Bible show that collectors should closely and critically examine the available evidence for each object rather than blindly trusting their dealers. Steinhardt was eventually punished for his lack of due diligence. His attitude ("If I see a piece and I like it, I buy it") attracted a wide range of crooked dealers and tomb robbers, who sold him 180 objects that were later proven to have been stolen, looted, or trafficked (Donahue 2023). Similarly, the case of the Museum of the Bible illustrates that discounted antiquities sold by the crate load in Middle Eastern warehouses are unlikely to be real bargains. And a private sale at a top auction house is not a good source of items intended for public display.

For private collectors in the middle and lower parts of the market, formal or informal sanctions are highly unlikely, however. If my peer group likes the look of lemons, lemons are attractive (we are not eating them, after all). If my visitors cannot tell lemons from peaches, lemons will do the job at a lower price. In some circumstances, a moldy peach is better than no peach. The original Akerlof institution-building story focused on the supply side: creating markets in which sellers of peaches can get a fair price. The antiquities market illustrates that there is also a demand-side story: it can pay to build distinct trading platforms that satisfy different buyers' tastes. And—as the dealers'-association websites show—it is also possible to shape these tastes.

The flipside of this institution-building success is the devastation of archaeological sites in the hunt for treasure across the globe and particularly in conflict regions (Brodie and Tubb 2002). Law enforcement and media pressure are focused on the very top of the market. It is likely that publicity around the repatriation of illicit antiquities has reduced demand among the super-rich, but that still leaves many well-off buyers in the market for possibly looted artifacts.

The institutional analysis above suggests some avenues for further reducing demand. First, the status of owning unprovenanced objects can be reduced if academic and museum experts refuse to work with all suspicious material (Brodie 2011). Scholarly research improves illicit objects' position in the authenticity dimension. Moreover, a renowned expert publishing or endorsing an object can be interpreted as giving it (moral) legitimacy. A social norm of not studying antiquities of unknown provenance reduces their status and price and hence the temptation to loot and traffic archaeological objects from their source countries.

Second, scholars such as Mackenzie and Yates (2016) note the importance of positive narratives in underpinning the demand for (illicit) antiquities. There is now a powerful counternarrative to the aristocratic scholar-adventurer on a Grand Tour: colonial and postcolonial exploitation (Yates 2016). Museums already face increasingly vocal restitution requests (Hicks 2020). Many are reviewing their collections, and some have already repatriated objects acquired well before the 1970 UNESCO watershed moment (Tythacott and Arvanitis 2014). It is questionable how long aspiring members of the cultural elite will maintain their interest in collecting objects with an increasingly problematic image.

Finally, it would be possible to end information asymmetry by creating a formal international register of licit (and genuine) antiquities. This might require legitimating many undocumented antiquities currently circulating in the market, after checking that they are not sought for repatriation. However, after the cutoff date for submitting antiquities for registration, the gray area that has been so skillfully exploited up to now would disappear. Buyers and sellers would face a clear choice between licit and illegal objects, rather than evading their responsibility behind a convenient veil of ambiguity.

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Shades of gray: product differentiation in antiquities markets

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