

# An Instance of Utilising Numismatology in Dating Biblical Texts: Leviticus 27:25 as a Test Case

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## Abstract

The date of the Pentateuch and its constituent parts is an ongoing debate in Old Testament studies. This article offers another way of dating a text. In Leviticus 27, which is widely regarded as an addendum to Leviticus, there is a reference to a specific currency. The study of coins, numismatology, is an expanding field, especially over the last 40 years. This article utilises numismatology to date Lev 27. The article touches on the debate of the mint in Jerusalem and the impact of the successful rebellion of Egypt on the Persian Empire. The coins found to date in Persian Yehud are discussed to identify the currency mentioned in the text of Lev 27. The article concludes that the date of Leviticus ascertained using redaction criticism is similar to the date determined for Lev 27 using numismatics.

**Keywords:** Pentateuch; numismatology; Leviticus 27; coins

## Introduction and Aim

This article deals with an alternative way of dating biblical texts. Schmid (2016) makes two important observations that are relevant here. Firstly, there are more divergences than convergences in global Pentateuchal scholarship. Secondly, “The very fact that such highly divergent positions are maintained by serious scholars shows that there is no way of proving a Persian date for specific Pentateuchal texts” (Schmid 2016, 101).

Through using redaction criticism, the book of Leviticus is dated to the Persian period and, more specifically, in some instances to the late Persian period (Fantalkin and Tal 2012, 3–4; Nihan 2007, 574). In the light of Schmid’s first observation above, it is evident that not all scholars accept this date. For example, Milgrom (1991) does not date Leviticus to the Persian period, preferring a pre-exilic date, while Hieke (2014, 70) supports an early Persian period date.

The Persian period lasted from 550 to 333 BCE. Referring to an early or late Persian period involves a lengthy period of time. The early Persian period (539–401 BCE) and late Persian period (401–333 BCE) are determined on the basis of the watershed event of the successful Egyptian revolt, which changed the dynamics of the Persian Empire (Altmann 2016, 173–4; Edelman 2005, 313).

This article poses the question: Is there an alternative methodology for dating a biblical text? Accepting the redaction criticism dating of Leviticus to the late Persian period (Nihan 2007, 574), the article uses the study of numismatology to confirm the date of this biblical text. Leviticus 27 is identified and accepted as an addendum to the book of Leviticus (Nihan 2007, 94, among many other). The specific text used to date the chapter is Lev 27:25. The text is presented in the table below.

**Table 1:** Text of Lev 27:25

<i>Biblia Hebraica Stuttgartensia (BHS)</i>	English Standard Version (ESV)
<p>וְכָל־הַקֶּדֶשׁ־לַיהוָה־יִשְׁוֶה־לְשֵׁקֶל־הַשְּׁמֵטָה־וְעֶשְׂרֵי־גֵרָחִים־יִשְׁוֶה־לְשֵׁקֶל־הַשְּׁמֵטָה׃</p>	<p><sup>25</sup>Every valuation shall be according to the shekel of the sanctuary: twenty gerahs shall make a shekel.</p>

This text refers to a specific currency, the shekel of the sanctuary, found in five other texts in the OT (Exod 30:13; Lev 27:3; Num 3:47; 18:16; Ezek 45:12). The reference is explicitly to *currency* at this point in the article as *currency* includes a broader spectrum of items used as payment, which will be discussed later.

To understand the background to the main arguments on the dating of Lev 27, some clarification is necessary, such as what numismatology entails and the development of

the notion of currency. Based on the dating of Leviticus to the late Persian period, relevant historical aspects will be discussed. The discussion of the historical aspects such as the debate on a mint in Yehud and the closely related debate on a Persian garrison in Jerusalem will aid in the dating of Lev 27.

Leviticus 27:25 will be discussed to highlight the significance of the currency it mentions. After that, the focus will be on the historical coinage from the Persian province Yehud. This article describes a path towards identifying a historical coin mentioned in this verse, which can be related to a coin found and documented by numismatists. When such a coin is identified, the circulation period documented by numismatists will be regarded as the date Lev 27 was written.

## Understanding Numismatology

The term numismatology and some of the key concepts used in this article on numismatology require clarification. *Numismatology* refers to the study of numismatics which is the study or collection of coins and medals (Collins English Dictionary [CED] 2006).

### Critical Concepts in Numismatology

*Coins* are a medium of *currency*, which refers to metal and later pieces of paper used as money in current use in a particular country (CED 2006). *Coinage* collectively refers to coins or the currency of a country as well as the act of striking coins (CED 2006).

*Coin in specie* as a noun is defined as coinage in the same or similar form or kind and is distinguished from bullion or paper money (CED 2006; Merriam-Webster 2003). *Coin in specie* refers to coins struck from the same metal, having at least the same average weight and similar icons and inscriptions on both sides of the coin as other coins. Many books use the term *coin types* instead of *coin in specie* (Tal 2011, 450).

*Parity* refers to the equivalence of the purchasing power between a different coin in specie of the same national currency or state of equivalence between a foreign currency at the established exchange rate to a specific sum of domestic currency (CED 2006). In simple terms, parity refers to instances in which the ratio between two coins in specie have the same purchasing power and sometimes the same weight. It is essential to understand the point about parity in this article. Based on the writings of numismatists and other scholars on coinage, three types of parity can be identified in the late Persian period. Each parity type is discussed below.

The first type of parity is the parity between coins in specie of the same metal. Similar metal coins are the only case where the weight will also be similar in achieving parity. In this type, a silver coin in specie will be equivalent to another coin in specie once the metal and the weight in total are equal. For example, an *obol*, a silver coin, weighs 0.72

grams, and a *drachma*, also a silver coin, weighs 4.3 grams (Gerson 2001, 110). Parity between these two silver coin types is that six *obols* equals the weight of one *drachma*.

The second type of parity occurs between coins struck from different metals, for example, gold and silver. Here weight will always be different once parity is established. Logically, gold has greater purchasing power than silver, and silver's purchasing power is greater than that of bronze. The two famous Persian coins in specie are the golden *daric* (8.4 grams), and the silver *siglos* (5.5 grams) with a parity of 20 *sigloi* for one *daric* (Markowitz 2020). Note the nonsensical nature of an attempt to establish parity by weight where the coin in specie is struck from different metals. Using the Persian coin in specie as an example: 20 silver *sigloi* (20 x 5.5grams) = 110 grams achieved parity with the golden *daric* (only 8.4 grams) (Markowitz 2020). Weight cannot be used to establish parity as 110 grams is not equal to 8.4 grams. The purchasing power has parity with 20 silver *sigloi* (110 grams silver) to one golden *daric* (8.4 grams gold).

The third type of parity is where the coinage is from different nations or empires, and an exchange rate must be established. Today, the mechanism of supply and demand establishes this exchange rate (foreign exchange), but this was probably managed through negotiations in ancient times, and the stronger authority would have had a clear advantage.<sup>1</sup> An example of this type of parity is that one *daric* had a parity of 25 Attic *drachma* and one *siglos* had a parity of seven and a half Attic *obol* (Alram 2011).<sup>2</sup> However, this type of parity falls outside the scope of this article.

Now that some fundamental concepts of numismatology have been explained, one additional aspect of numismatology needs to be addressed, namely identifying coinage.

### Identification of Coinage

Numismatists use four identification markers to identify coinage and categorise it into different coins in specie (coin types). These are the metal used to strike the coin, the metrology of the coin, iconography (the symbols), and the different inscriptions on either side of the coin.<sup>3</sup> Numismatists refer to the front side (heads) of coins as the *obverse* and the other side (tails) as the *reverse* (Hornby 2015, 1031, 1286).

Coins in the Persian period were generally struck from gold, silver, and bronze; in some cases, lead was used as a base on the inside then covered with silver (Schaps 2014, 39; Tuplin 2014, 131; Hendin 2013, 260). Silver was the most common metal used to

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1 *Foreign exchange* is “the system by which one currency is converted into another, enabling international transactions to take place without the physical transportation of gold” (CED 2006).

2 Both the Attic *obol* (at 0.72 grams) and Attic *drachma* (at 4.3 grams) are silver coins struck on the base Attic weight standard in Greece (Gitler, Tal, and van Alfen 2007, 53; Gerson 2001, 110).

3 *Metrology* is the science of weights and measures, the study of measurement (CED 2006).

produce coinage (Schaps 2014, 38). The use of lead was characteristic of the Roman era, which falls outside the scope of this article (Schaps 2014, 69).

The metrology of coins in specie will be discussed in more detail later in the article.<sup>4</sup> Suffice to say that metrology is essential as there could be coins in specie from the same metal displaying similar iconography and inscriptions but with a different weight, indicating a different coin in specie.

Iconography refers to the icons or portraits found on coins (CED 2006). It refers to the symbolic representation on a coin irrespective of the side. Iconography is crucial as it aids in identifying the coin in specie and the issuer (Sehgal 2015, 104).

The last of the identifying markers in this study is the inscription on a coin. Inscriptions are words, letters, or numbers inscribed (carved or engraved) on coins (CED 2006; Luther, Pfeiffer, and Gouws 2015, 525).

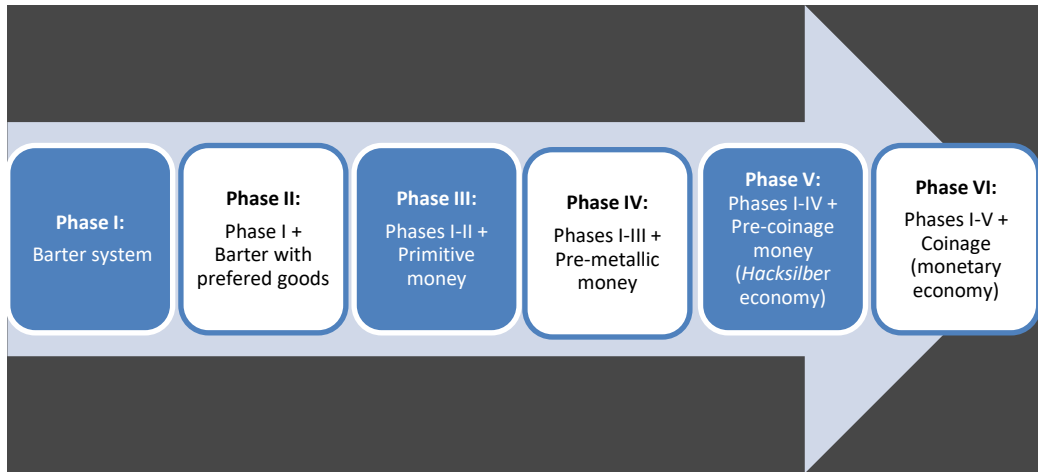
It will be helpful to explain how all these terms fit together. All *coinage* is *currency*. The coinage system of a particular empire or region consists of its base coinage weight system. Coins are then minted based on the particular coinage weight system. A coin will have an *obverse* and *reverse* side and all the coins of the same weight, metal, same obverse and reverse iconography and possible inscriptions are referred to as a specific *coin in specie* (coin type). If any of the four numismatic identifiers (metal, metrology, iconography, and inscription) change, a new coin in specie is identified. A *coinage weight system* is the weight standard set by empire or government for each coinage system. As an example, the coinage system of the Persian Empire consisted of two primary coins, the *daric* at 8.4 grams and the *siglos* at 5.5 grams. Each of these had many coin types or coins in specie. When the iconographic figure on the *daric* coin changes, e.g., the stance depicted on the coin changes from a standing posture to a kneeling posture), a new coin in specie or coin type is identified.

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4 The obverse side is defined as “the side of a coin or medal that has the head or main design on it” (Hornby 2015, 1031). The reverse is defined as “the back of a coin” (Hornby 2015, 1286).

## The Development of Currency

This overview of the development of currency will be based mainly on the discussion in Davies (2002, 9–65). Figure 1 presents the development of currency in phases. This will enable the placement of the currency instrument referred to in Lev 27:25 in a specific phase. Each phase in the diagram is summarised briefly, but the focus of this article will be on Phases V and VI, which is where most scholars place the currency instrument referred to in Lev 27:25.



**Figure 1:** The development of currency (Davies 2002, 9–65)

Phase I, the direct barter system, refers to the direct exchange of goods and services needed by both parties. No intermediate goods or persons were involved.<sup>5</sup> Phase II still entailed using the barter system, but one or two preferred products were used for barter and markets were created to facilitate barter trade.<sup>6</sup> Phase III is the first phase in which the term “money” is used. Davies (2002, 29) defines money as “anything that is widely used for making payments and accounting for debits and credits.” In this phase, primitive money is “all money that is not coin or, like modern paper money, a derivative of a coin” (Grierson 1977, 14). Primitive money does not entail the use of any copper, silver, or gold.<sup>7</sup> In Phase IV, pre-metallic money appears, which is a refinement of primitive money. Davies lists six functions of money applicable to all subsequent phases

5 A person needing shoes and who has a surplus of apples might look for a cobbler who needs apples to effect a trade in the direct barter system.

6 Sehgal (2015, 98) mention that in Mesopotamia in 2500 BCE, the preferred barter goods included items such as vegetables, cattle, and sheep.

7 The following objects are some of the goods used as primitive money: amber, beads, cowries, drums, eggs, feathers, gongs, hoes, ivory, jade, kettles, leather, mats, nails, oxen, pigs, quartz, rice, salt, thimbles, umiaks, vodka, yarns, and zappozats, which are decorated axes (Davies 2002, 27).

(Phases IV–VI): 1) the item must be a unit of account; 2) there must be a standard measure of value; 3) it must be a unit of exchange; 4) it must be used as a means of payment; 5) it must be able to be a standard for deferred payment, and 6) it must be able to store value.<sup>8</sup>

This article will refer to two economies in reference to the respective currency development. The first is the *Hacksilber* (or hacksilver) economy or bullion economy, first used in Phase V (Ialongo, Vacca, and Peyronel 2018, 22; Kletter 2004, 209). The second is the coinage-based monetary economy, first used in Phase VI (Kletter 2004, 210). While development in Phase VI gained ground as a currency instrument, currencies in Phases I-IV, and especially the currency of Phase V, were still in operation.

Returning to Phase V, *Hacksilber* used pieces of metals which had to be weighed for each transaction when presented as payment (Kletter 2003, 207, 209). In this phase, balance weights and weight-regulated objects were the direct material required in a standard weight system (Ialongo, Vacca, and Peyronel 2018, 22). There was a fixed standard set of weights which merchants carried with them enabling them to transact. Ialongo, Vacca, and Peyronel (2018, 22) mention that the standard (balance) weights were the backbone of *Hacksilber* (standard weight system). Two aspects are of particular significance (Ialongo, Vacca, and Peyronel 2018, 22): first, these standard weights had to comply with the official standard weights as determined by the empire or government; the second was to establish the acceptable degree of approximation or deviation from the set standard weights to the ones used by the merchants to still be acceptable in the standard weight system. In simple terms, even in a weight-based system such as *Hacksilber*, not all standard weights were precisely the same. There was some deviation from the official standard, which is vital to keep in mind.

*Hacksilber* includes items of copper, bronze, silver and gold, which were weighed as payment (Davies 2002, 45–46):

sometimes just as unmarked lumps of various shapes and sizes but more often in the form of rods, wire coils, and rings, anklets, bracelets, and necklaces, that is in forms which were intended especially to facilitate their acceptance as money.

*Hacksilber* refers to very small pieces of metal, usually silver pieces or cut up jewellery (Kletter 2003, 146). Larger metal pieces are called *ingots*, which are pieces of cast metal obtained from a mould in a form suitable for storage, transport, and currency in large transaction and payment of tribute (CED 2006; Kletter 2003, 146). Silver in Phase V did appear more in the Levant in the form of *Hacksilber*, shavings, and slices of silver

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8 For example, the list of primitive money included eggs and salt, but they would not qualify as pre-metallic money as they could not store value over a prolonged period, point six of Davies's (2002, 27) list.

in small unsystematised amounts to balance weighing, instead of ingots (Nam 2012, 176).

During the second half of the sixth century BCE, the Hacksilber economy evolved into Phase VI, the monetary economy (Kletter 2003, 209; Davies 2002, 63). The monetary economy required payment by way of coinage. In this economy, no weighing of the coins presented as payment was required. On the matter of weighing coins, Kraay (1976, 2) wrote:

The type obviated weighing each piece, as would have been the case with bullion, since it was a sign that the piece was of full value ... the type identified the issuing authority, to those who trusted or were subject to that authority, but also guaranteed its acceptance back by that authority.

Wyssmann (2014, 222) highlights the importance of ancient coins. He explains that ancient coins like those from the Persian Empire provide important information about a specific region or province's economy, politics, culture, and religion. Coins had a twofold usage: they were primarily used as currency to pay for the army, the maintenance of the administration, and state expenditure (Eyal 2013, 179; Betlyon 1992, 1082); secondly, they were also a medium of communication conveying the message of who was in power by portraying the emperor's likeness or an icon of a religion (Wyssmann 2014, 222; Eyal 2013, 179). Uehlinger (1999, 175) believes that coins were an important iconographic medium utilised in the Persian and early Hellenistic periods. The iconography on coins is vital as it reveals the origin, the issuer's authoritative institution, and the date of origin (Sehgal 2015, 99). These three pieces of information are of the utmost importance to the study of numismatics and the attempt at dating in this article.

The phases presented in Figure 1 overlapped as a new phase developed. The previous phases continued to operate along with the preceding phases. To illustrate this point, the example of cowrie shells is helpful. Cowrie shells were used as a primitive means of payment (Phase III) and grew in demand as money (Phase IV) and were still widely used in Africa as recently as 1920 (Davies 2002, 37).<sup>9</sup>

Now that the development of currency has been outlined, we can turn our attention to the use of numismatology to date Lev 27.

## A Mint in Yehud?

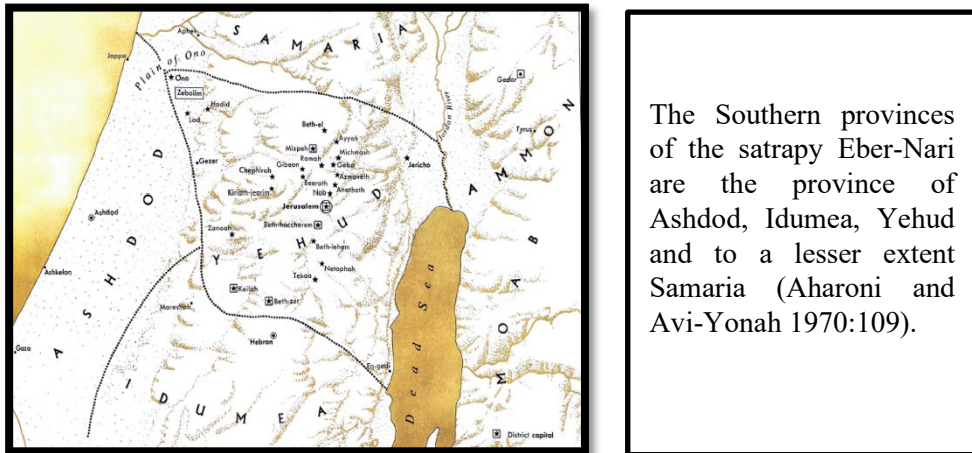
Two closely related debates are relevant here, the first on the possibility of a mint in Jerusalem, and the second on whether there was a Persian garrison stationed in

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9 *Cowrie*, also *cowry* shells, refers to any marine gastropod mollusc and was used as money in Africa and Southern Asia (CED 2006).



Jerusalem. It is crucial to this study to establish whether there was a mint in Yehud, not necessarily in Jerusalem. I do not have a strong view on either of these debates but note both only as they support the arguments that a mint was operating in Yehud during the fourth century BCE, which I believe to be accurate. Some arguments in both debates will be touched on briefly.



**Figure 2:** Yehud and neighbouring provinces (Aharoni and Avi-Yonah 1970, 109)

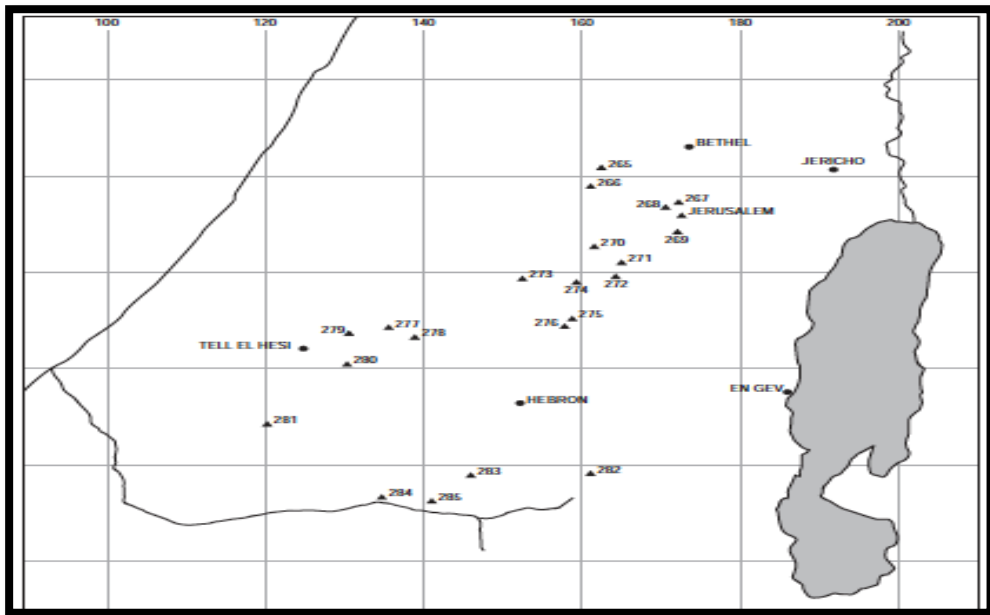
Arguments to establish the existence of a mint in Jerusalem point to political changes after Egypt successfully rebelled against the Persian occupation and gained its independence circa 400 BCE (Wyssmann 2014, 225). The change in the geopolitics of the Persian Empire required some adjustments towards the southern Eber-Nari provinces.<sup>10</sup> The change even included creating the province of Idumea in circa 400 BCE (Fantalkin and Tal 2006, 180). All the southern provinces experienced changes (Fantalkin and Tal 2006, 180):

It thus seems that southern Palestine experienced a significant transformation in its political organisation sometime around 400 B.C.E. This transformation suggests a higher level of direct imperial involvement in the local administration.

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<sup>10</sup> *Geopolitics* refers to the impacts that the combination of political geography and politics have on a country or area (CED 2006).

Altmann (2016, 173–74) explains that more troops and support personnel were present in these new border provinces from 400 BCE, especially from 380 BCE. The increase in activities mentioned by Altmann, supported by archaeology, is also mentioned by Edelman (2005, 313), who refers to 109 settlement sites from Yehud, 60 of which were on new land, and 49 were reoccupations of older facilities. Figure 3 shows the many sites where archaeological evidence indicates the presence of a military fort.



**Figure 3:** Military sites in Persian-era Yehud (Edelman 2005, 309)

Edelman (2005, 348) links the two arguments by positing that the mint was operating in Jerusalem and the Persian garrison was stationed there to protect the coinage. These soldiers required payment, as did the other troops and support personnel (Altmann 2016, 174).

These large numbers of people had to be fed, sheltered, and equipped, resulting in increased activities in the provinces, including Yehud. Edelman (2005, 328) mentions that a large number of the Persian-period settlements were either farmsteads or small towns that did not have walls or a military purpose, but this suggests economic exploitation by the Persian Empire. The primary purpose of these settlements was to provide food for the increased population, the troops and support personnel (Edelman 2005, 345). The archaeological evidence shows several large grain stores in Yehud, especially on the main routes to Egypt (Edelman 2005, 348).

Adams (2014, 102) mentions growth in the economy and an expansion in trade in Yehud during the Persian period. His main argument is based on the coins in specie carrying

the inscriptions *yhd* which, according to him, indicate a mint in Jerusalem. More on a coin in specie with a *yhd* inscription later. Following the development of the notion of currency, Adams mentions the increased use of coinage as the economy developed even after the Persian period.

Wyssmann (2014, 255) mentions that Jerusalem's importance, especially in comparison to Samaria during the Persian period, was not its role as a place of commerce or as an administrative centre or even as a military base, but rather in terms of its cultic importance as a place of pilgrimage. Wyssmann (2014, 255) supports the argument for a mint in Jerusalem:

It is fair to assume that the coinage that was produced here was closely related to the sanctuary and was possibly often used to pay fees at the temple. Against this background, the need for a more restrained iconography on the Judean coinage could be explained conclusively.

Altmann (2016, 171) does not share Wyssmann's certainty but admits his arguments do have merit. Altmann (2016, 173) mentions that the *yhd* coin in specie started to appear in the late Persian period, but unlike Adams (2014, 102), Wyssmann (2014, 255) and Edelman (2005, 348), he does not mention his acceptance of the idea that there was a mint in Jerusalem or anywhere else in Yehud.

Many scholars accept that Yehud minted its own coinage from circa 400 BCE (Tal 2012, 254; Cataldo 2009, 86; Root 2005, 131; Gerson 2001, 111; Carter 1999, 278). Tal (2011, 449) posits the idea of the mint in Yehud (Judah, Tal's term) with which I concur:

There is a consensus that minting began somewhere in fourth century B.C.E. Judah... It seems, however, that the beginning of Judahite coin minting should be understood against the Achaemenid imperial policy and the reorganization of the southern frontier of the fifth Persian Satrapy once domination of Egypt came to an end.

Having accepted the existence of a mint operating in Persian Yehud, the dating of Lev 27 can now be investigated.

## Methodology

Earlier it was indicated that this article needs to establish an intersection between the OT text of Lev 27:25 and the discipline of numismatology. To achieve this aim, four objectives need to be satisfied.

The first objective is to interpret the text of Lev 27:25 in the light of relevant information from the other OT texts. This objective will set the identification markers required of the currency mentioned in the text. The second objective is to list silver coins in specie found in the province of Yehud in the Persian period (550–333 BCE) or in the early Hellenistic province of Judea (333–64 BCE). The third objective is to identify a specific

coin in specie from objective two, matching Lev 27:25 requirements identified in objective one. The final objective is to identify the intersection between Lev 27 and numismatology by establishing the circulation period for the specific coin in specie.

Having provided an overview of the methodology, two implicit assumptions need to be addressed. First, the currency referred to in Lev 27:25 is assumed to be a coinage, therefore the mention of the debate on the mint in Yehud. The second assumption is that a specific coin in specie was in circulation when Lev 27 was written; otherwise, the intersection will provide an incorrect circulation date.

**Objective One—Considering the Text: Lev 27:25**

In this section the focus is on Lev 27:25. Table 2 provides the Hebrew text and some translations of the verse.

**Table 2:** Lev 27:25 Hebrew text and translations to English, Dutch and Afrikaans

Biblia Hebraica Stuttgartensia (BHS)	Translations in different languages
<div style="border: 1px solid black; padding: 2px; display: inline-block;">                     &gt;E&gt; MLN&lt;N&lt;e&gt;HM&lt;                 </div>	<b>English Standard Version (ESV 2016)</b>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">                     &gt;E&gt; MLN&lt;N&lt;e&gt;HM&lt;                 </div>	<sup>25</sup> Every valuation shall be according to the shekel of the sanctuary: twenty gerahs shall make a shekel.
<div style="border: 1px solid black; padding: 2px; display: inline-block;">                     &gt;E&gt; MLN&lt;N&lt;e&gt;HM&lt;                 </div>	<b>De Nieuwe Bijbelvertaling (NBV 2004)</b>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">                     O&gt;HM&lt;                 </div>	<sup>25</sup> Alle waarden worden berekend volgens het ijkgewicht van het heiligdom, twintig gera per sjekel.
	<b>Own Afrikaans translation</b>
	<sup>25</sup> “ ‘Elke loskoopwaarde moet volgens die <i>sikkel van die heiligdom</i> bereken word; twintig gera is ’n sikkel.

One of the assumptions is that this text refers to coinage, not Hacksilber. However, some scholars such as Kletter (1998) and more recently Hieke (2014, 1109) refer to the reference in Lev 27:3 (a text similarly referring to the same currency) as a currency in a Hacksilber economy:

Der Verweis auf das »Schekelgewicht des Heiligtums« soll sicherstellen, dass für das Abwiegen des Silbergeldes die »Normgewichte« des Tempels verwendet werden – und nicht die eigenen Gewichte der Händler, die möglicherweise manipuliert sein könnten

(s. Lev 19, 36). Damit wird auch festgeschrieben, dass den Richtwert für Gaben an den Tempel die dortigen Tempelgewichte und -hohlmaße bilden.

Referring to Lev 27:25 in his commentary, he mentions the “Schekel-Gewichtssteinen” (shekel stone weights), which indicates that he regards the currency as part of the Hacksilber economy (Hieke 2014, 1120–21). I note these assumptions, but due to the presumed later writing of Lev 27, I believe it is more likely that the reference is to coinage and not Hacksilber.

Powell (1992, 907) notes that apart from Ezekiel 45:12, all other OT texts mentioning the shekel of the sanctuary (Exod 30:13; Lev 27:3, 25; Num 3:47; 18:16) are in the P source. Kletter (1998, 101) observed that the sanctuary's shekel is mentioned only in the context of temple tax, vows, and offerings to Yahweh. Hieke (2014, 1120 and earlier also Kletter 1998, 101) argue that there were more types of shekels in circulation in Yehud; in addition to the shekel of the sanctuary (𐤍𐤅𐤂𐤁𐤀𐤂𐤁) there were the King's shekel (𐤍𐤅𐤂𐤁𐤀𐤂𐤁) (2 Sam. 14:26) and the commercial shekel (𐤍𐤅𐤂𐤁𐤀𐤂𐤁) (Gen 23:16). These shekels could be part of either the Hacksilber or the monetary economy. Both scholars state that Lev 27:25 is referencing Hacksilber. Even if the shekels mentioned are Hacksilber, this confirms the existence of multiple shekel weights.

To summarise the general information regarding Lev 27:25 itself: some scholars regard the currency mentioned in the focus text as Hacksilber without entertaining the idea of coinage. I have assumed that the text refers to coinage, a specific coin in specie that must be silver and a shekel of the sanctuary. The sanctuary's shekel was one of at least three types of shekels in weight circulating in Yehud.

The explicit identification marker of the coin in specie from Lev 27:25 is its parity, namely, the shekel of the sanctuary is equal to 20 *gerahs*, meaning a parity one shekel equals 20 *gerahs* (a 1/20 parity) exists between the *gerah* and shekel. Scholars provided some theories to address this uncommon, 1/20 parity. Some of these theories will be discussed.

Kletter (1998, 101) underscores the peculiar 1/20th parity of this coin in specie, seeing that nowhere in the OT is weight assigned to either the *gerah* or the shekel. However, the most vital identity marker to the coin in specie of the text is the 1/20th parity of *gerah* to the *shekel*, and both are silver. Root (2005, 131) highlights the peculiarity:

The provincial coins of Yehud are unique among fourth-century local issues because almost all of Yehud coins are of unusual fractional denominations. Because of this and the fact that the Yehud coins are uniformly small, modern scholars have been unable to determine the weight standard upon which the coins were minted.

Hendin (2013, 259) references the work of Kletter (1998, 101) who, in explaining the 1/20 parity, proposed that the specific reference to word twenty is a result of a scribal mistake in the reproduction of the texts. Kletter (1998, 101) is of the view that the word

should read twenty-four and not twenty. But there are too many text references in the OT that refer to the word twenty for it to be considered a scribal mistake. Five texts in the OT refer to this specific 1/20 parity (Exod 30:13; Lev 27:25; Num 3:47; 18:16; Ezek 45:12).

Powell's (1992, 907) explanation does not say that a scribe was responsible for the incorrect word twenty. He explains the 1/20 parity as a deviation from the ordinary standard parity of 1/24 for smaller coins to the standard base coin. In the words of Powell (1992, 907):

This problem is associated with the history of the *gerah*, which occurs in the OT only in connection with the shekel of the sanctuary in the Priestly Code (Ex 30:13; Lev 27:25; Num 3:47, 18:16) and in Ezek 45:12, both of which identify 20 *gerahs* with one shekel. The origin of the *gerah* is still obscure, but both Babylonian and Greco-Roman sources point to 1/24 as the original division and 1/20 as the derivative.

Powell contends that explaining the parity of 1/20 *gerah* to a shekel of the sanctuary as a deviation from the standard shekel, which has a 1/24 parity, is too easy and brings us no closer to a possible identification of a coin in specie mentioned in the Leviticus text. Ronen (1998, 124) and Hendin (2013, 256–57) think the coinage system, especially that on which the *yhd* coin in specie was struck, used the pre-exilic weight system, which had a 1/24 parity for the coin in specie. Hendin's main argument is that the majority of the population of the kingdom of Judah was not sent into exile and continued with the weight system they knew. Root (2005, 132) disagrees, saying the Jews in Yehud had no way of knowing the weights that the pre-exilic kingdom of Judah used. Kletter (1998, 131–39) refers to archaeological evidence from pre-exilic Judah reflecting a 1/24 parity in use, and again Root (2005, 132) counters by saying that without the actual weight stones used in the pre-exilic kingdom of Judah, the weight standard cannot be known. All the explanations regarding the parity mentioned in the text refer to a base standard coinage system using a 1/24 parity.

Root (2005, 132) offers a different proposal:

Instead of resurrecting a pre-exilic weight standard, it seems more likely that the returned exiles established a new system of weights based on the specifications outlined in the Torah. In order to set up this new standard, it is probable that the Jews would have adopted the weight standard of a powerful neighbouring region.

The reference to the Torah by Root in the quotation above raises some questions. Four texts in the Pentateuch (Torah) refer to the weight system based on a 1/20th parity (Exod 30:13; Lev 27:25; Num 3:47; 18:16). Leviticus 27 is regarded as an addendum text, and

Numbers is the last book added to the Pentateuch (Meyer 2017, 134; Frevel 2013, 12).<sup>11</sup> Root seems to advocate a text-to-practice reference where the text drives what is implemented in practice. Is it not more plausible to advocate a practice-to-text scenario, where the text merely states what is already practised in the cult? My view is that the text reflects what is already adopted in practice in the cult.

Root (2005, 132) explains the basis of his new proposal by pointing out that it would be logical for the benefactors of Persian rule, the returnees from exile, to adopt the weight standard of the Persian Empire of which they were subjects. This view brings us to the weight standard, a coinage weight standard of the Persian Empire.<sup>12</sup>

The coinage standard of the Persian Empire was based on two leading coins. The first is the golden *daric* at 8.4 grams, the same weight as the Babylonian silver shekel (Brosius 2021, 64; Markowitz 2020). The second is the silver *siglos* at 5.4–6 grams, which is the same as the Canaanite shekel (Markowitz 2020; Thonemann 2015, 47). The *siglos* and the golden *daric* coins of the Persian Empire had a 1/20th parity, with the gold coin being the more valuable one (Markowitz 2020; Bivar 2010). This Persian coinage system with parity of 1/20th had remained unchanged for two centuries (Markowitz 2020).

Root (2005, 133) provided another explanation for the *gerah* having a 1/20th parity as mentioned in Lev 27:25. The *siglos* was known as the silver shekel in Yehud (Root 2005, 131). The silver *siglos* (silver shekel) weighed 5.3–5.6 grams, and one twentieth of this weight is 0.27–0.28 grams (Thonemann 2015, 47).<sup>13</sup> Root (2005, 133) mentions that the Yehud coinage weighed 0.26–0.28 grams, which is too small for use in international trade. The coinage from Yehud must have been used for local trade only (Hendin 2013, 260). Local trade would include use at the temple in honouring cultic obligations.

The argument presented by Root does indicate a possible coinage with a 1/20th parity. Hendin (2013, 257) points out that developments in numismatology increase the possibility of identifying an intersect:

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11 Frevel (2013, 12) mentions that Numbers 25–36 is “very late and almost end-compositional priestly strata.” Meyer (2017, 134) highlights the links between Leviticus 27 and Numbers 18 which place both chapters late in the Pentateuchal composition process. Both views would make the implementation of a theoretical weight system difficult because of the lateness of the respective texts.

12 To clarify: a monetary economy where coinage is used as currency does not disregard weight, and weight systems are the basis on which the monetary economy is built. A monetary economy using coinage has the advantage that metal need not be weighed at the point of payment of a transaction as is the case with Hacksilber.

13 Other scholars who mention the weight of the *siglos* in this range are Alram (2011), Bivar (1985, 617), Kraay (1976, 32), and Robinson (1958, 190).

Most of these coins have been known for only about 40 years, and new types are still being discovered. Meshorer (1982) listed 17 types; Meshorer (2001) listed 35 types; Hendin (2010) listed 41 types.

This section posits the possibility of the text referring to a small coin in specie used locally within the cult in Yehud. In conclusion, Root (2005, 133) argues that the citizens of Yehud accepted the Persian silver shekel (the *siglos*) as the base standard coin and retained the 1/20th parity. Objective two aims to identify a coin in specie that would satisfy the criteria set by the biblical text of Lev 27:25.

### **Objective Two—Identifying a Possible Coin in Specie (Coin Type)**

Thus far, we have established that a mint was operating in Yehud during the fourth century BCE, and the text is probably referring to a historical coin in specie for use during the time in the local cult in Jerusalem, the site of the temple. The second objective is to list all possible coins in specie struck in Yehud during the fourth century and determine if any of the coins had a 1/20th parity.

Over the years, various scholars have classified the Yehud coins in specie. Based on the comment by Hendin (2013, 257) on the growth of numismatology with regard to Yehud coinage, this is an ongoing process. I will discuss various scholarly contributions that have attempted such a classification and place the coinages on a timeline.

Mildenberg (1979, 67–70) classified the coins in specie found in Siro-Palestine (a territory more extensive than Yehud) into three broad categories: imperial coinage, provincial coinage, and local coinage.

Tal (2011, 449) classified the coinage of Yehud into one of two styles based on the iconography of these coins. The first style is the Athenian, which displays the head of Athena on the obverse and owl with a small olive branch with an inscription on the reverse. The other is the Judah style, which displays deities, people, animals, and floral motifs, and an inscription is found on the reverse.

The inscriptions on the local coins found in Yehud indicate the origin of the coin; those under Persian rule carry the inscription *yhd* or *yhwd* (Wyssmann 2014, 242). Other coins from the Persian period carry personal names like Yehezqiyah (*yhzqyh*) and Yohanan (*ywhnn*) (Wyssmann 2014, 243). Lastly, on some coins, the personal name is combined with a title such as governor (*hphh*) or priest (*hkwhn*) (Wyssmann 2014, 243). The combination of personal names and titles on coins appears as Yehezqiyah the governor (*yhzqkyh hphh*) and Yohanan the priest (*yhwhnn hkwhn*) (Wyssmann 2014, 243). I do not discuss the coins from the Hellenistic period, as that is too late for the purposes of this study.



Betlyon (1992, 1083–84) constructed a timeline of the small silver coins in specie from Yehud reflected in the table below with information on the iconography and metrology. The source of information is Betlyon (1992, 1083–84) unless indicated otherwise.

**Table 3:** Coins in specie from Yehud placed on a timeline

Coin in specie	Approximate dating BCE	Identification obverse	Identification reverse	Average weight
<i>Yhd</i> (owl coins)	Soon after 400	Head of Athena facing to the right	owl and olive branch and inscription <i>yhd</i>	0.48 grams
<i>Yehud</i> (Persian-king coin)	circa 370	Head of a local leader in Persian dress	Lily and falcon with spread wings and inscription <i>yehud</i>	0.26 grams
Yehud drachma  <sup>1</sup> / <sub>4</sub> shekel - (Gitler 2011, 21)	circa 360	Bearded head in Corinthian helmet	Male deity seated on a winged wheel, with a head of Egyptian deity Bes to the side Inscription <i>yehud</i>	
<i>Yehizqiyyah</i> , the governor	circa 346	Head facing front	Owl with one of two inscriptions: <i>yhzqh hphh</i> or <i>yehizqiyyah happehah</i>	Persian standard: 0.24 grams = <sup>1</sup> / <sub>2</sub> gerah. Attic standard: 0.18 grams = <sup>1</sup> / <sub>4</sub> obol (Gitler and Lorber 2008, 68)  Change in weight standard occurred from the Persian to the Attic weight standard.  (Gitler and Lorber 2008, 68)

Yohanan, the priest	circa 340	Head facing front	Owl with one of two inscriptions: <i>yhnn hkhn</i> or <i>yohanan hakkohen</i>	0.51 grams (Ronen 1998, 122)
<i>Yehizqiyyah</i> <i>(with inscription)</i>  (25 specimens - (Gitler and Lorber 2008, 76)	circa 340	Head facing front (Gitler and Lorber 2008, 76)	Forepart of winged and horned lynx (winged lynx) inscription - <i>Yehizqiyyah</i> (Gitler and Lorber 2008, 76)	0.24 grams (Gitler and Lorber 2008, 76)
<i>Yehizqiyyah</i> <i>(without inscriptions)</i>  14 specimens - (Gitler and Lorber 2008, 79)	circa 340	Head facing front (Gitler and Lorber 2008, 61)	Forepart of winged and horned lynx (Gitler and Lorber 2008, 61)	0.19 grams (Gitler and Lorber 2008, 78)
<i>Yhwdh</i> <i>(reusing old dies of the yehud coin in specie)</i>	<i>circa</i> 331 <i>(shortly after the defeat of the Persian Empire)</i>	Head of a local leader in Persian dress	Lily and falcon with spread wings and inscription <i>yhwdh</i> (Ronen 1998, 124)	0.33 grams (Ronen 1998, 124)

Each of the coins in specie will be elaborated on in the following section, providing more insight into each.

### *The Yhd Coin in Specie*

Root (2005, 131) references the work of Mildenberg (1979, 184–91) and Meshorer (1982, 13–14), who classify this coin in specie in group I. This is the most frequently found coin in specie; enough of them have been found to enable an accurate average weight to be calculated (Ronen 1998, 122). This coin in specie is commonly referred to as the owl coin. This coin weighs an average of 0.48 grams (Hendin 2013, 257; Tal

2011, 449; Ronen 1998, 122). The coin in specie's circulation is dated variously. Carter (1999, 278) dates the coin to 400–350 BCE and mentions the circulations dates of Betlyon (400–370 BCE) and Mildenberg (360–350 BCE). It is safe to date the circulation of this coin in specie to the first half of the fourth century.

#### *The Yhud Coin in Specie*

Root (2005, 131) references the work of Mildenberg (1979, 184–91) and Meshorer (1982, 13–14), who classify this coin in specie in group II. This coin in specie is commonly referred to as the Persian king coin. The Persian king coin weighs an average of 0.26 grams (Hendin 2013, 257; Tal 2011, 449; Ronen 1998, 122). Mildenberg, Meshorer, and Carter date the circulation to between 350 and 340 BCE, with Betlyon dating it earlier to between 370 and 340 BCE.

#### *The Yehud Drachma Coin in Specie*

Betlyon (1992, 1083) thinks that this coin in specie, which displayed an image of a deity, was not struck in Yehud, as it would have offended the cult-abiding citizens. Carter (1999, 278) dates the coin to 350–340 BCE and Betlyon dates it to 362–358 BCE. This coin in specie can be safely dated as circulating in the middle part of the fourth century BCE.

#### *The Yehizqiyyah Coin in Specie*

In the table there are four coins in specie displaying a face facing forward on the obverse. Two coins display an owl with an inscription, and two display the forepart of a winged and horned lynx, one with an inscription and the other without. One of these four coins in specie is without an inscription, and another has the reference to either Yehezqiyah the governor or Yohanan the priest (Wyssmann 2014, 243). Betlyon dates the circulation of both these coins in specie to 358 to 333 BCE (Gitler and Lorber 2008, 62).

The Yehezqiyah coin in specie carries one of two inscriptions, either Yehezqiyah the governor (*yhzqh hphh*) or (*yehizqiyyah happehah*). Fried (2003, 67) dates the coin in specie much earlier than other scholars, to 378 to 368 BCE. Carter (1999, 279) dates the circulation period of this coin to 340 to 333 BCE.

Yohanan the priest coin in specie carries one of two inscriptions, either only Yohanan (*yhwhnn*) or Yohanan the priest (*yhwhnn hkwhn*) (Wyssmann 2014, 243). Carter (1999, 279) dates this coin in specie to 335–330. Fried suggests an early circulation date, but other scholars date these coins in specie to the beginning of the first half of the fourth century BCE to the last part of the Persian Empire.

The change from the Persian standard to the Attic standard runs through this coin in specie (Wyssmann 2014, 244). Evidence is discernible of the change in coinage standard in these coins in specie.

### *The Yhwdh Coin in Specie*

Betlyon (1992, 1084) mentions that shortly after the fall of the Persian Empire, old dies initially used for the *yhd* coin in specie were reused, but the inscription was changed from *yhd* to *yhwdh*.

All the small silver coin in specie have now been listed and discussed and in the following objective an attempt will be made to identify a single coin in specie as the coin mentioned in Lev 27:25.

### **Objective Three—Identifying a Possible Coin in Specie (Coin Type)**

The primary aid in identifying the coin is the 1/20 parity. This specific parity points to the coinage of the Persian period, where the same parity was utilised.

It was argued above that the *Yehud drachma* was not an acceptable candidate for the coin of the text, as the iconography would prevent its use in the cult as it displays an image of a deity. After the fall of the Persian Empire, it was mentioned earlier that a change in weight standard took place during the circulation of the *yehizqiyyah* coin in specie. This change in weight standard would also rule out this coin in specie as a viable option for the Lev 27 coin.

The only plausible coins in specie options are the owl or the Persian king coins. It was indicated earlier that the *yhd* coin in specie, commonly known as the “owl” coin, has an average weight of 0.48 grams. The Yehud coin in specie, commonly known as the Persian king coin, weighs 0.26 grams. Root (2005, 133) indicated that the coin in specie referred to in Lev 27 is the Yehud (Persian king) coin in specie. His reasoning is outlined below.

It was indicated above that the Persian silver standard coin, the *siglos*, is referred to as the silver shekel (Root 2005, 133). This coin has an average weight of 5.3 to 5.5 grams with a 1/20 parity to the *daric*. It would retain the same parity to smaller denominations. It was also noted above that the siglos had a similar weight as the Canaanite shekel (Markowitz 2020; Thonemann 2015, 47).

Therefore, if the weight of the siglos (the silver shekel) and the Canaanite shekel had the exact weight of 5.3 to 5.6 grams, and the 1/20 parity was applied (dividing the 5.3 and 5.6 by 20), the weight of Lev 27 should be around 0.265 to 0.28 grams. The average weight determined by Ronen (1998, 122) of the Persian king coin in specie is 0.26 grams.<sup>14</sup> Going by weight, the Persian king coin in specie is therefore very probably the coin referred to in Lev 27:25.

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14 Ronen (1998, 122) explains that 82 coins of the Persian king coin in specie were examined and 82% of the weight of these coins fell between 0.20 and 0.31 grams, i.e., an average of 0.26 grams.

The last objective is to identify the intersect between the text and the identified Persian king coin in specie.

### **Objective Four—Identifying the Intersect**

The circulation date of the Yehud (Persian king coin in specie) was mentioned above. Carter (1999, 278) mentioned his and other scholar's circulation date of the Persian King coin between 370 and 340 BCE. This date is the intersection of the Lev 27:25 text and the coin the verse refers to, the Persian king coin.

### **Conclusion**

This article drew on the principles of numismatology to date an OT text, Lev 27. To achieve this, the study of numismatology and related concepts were explained. An overview of the development of currency was provided. Scholars hold different views on the currency mentioned in Lev 27:25; some view it as Hacksilber and others as coinage; I agree with the latter. I made several assumptions: first, that the text refers to a specific historical coin in specie, and secondly that this coin in specie was in circulation at the time Lev 27 was written.

In order to use numismatology to date an OT text, an intersection had to be identified where the coin in specie mentioned in the text corresponds with the historical coin in specie as identified through numismatology. Numismatology uses four identification markers to identify a coin in species. The identification markers are the metal that the coin was struck from, metrology (the study of measures) of the coin, iconography, and inscriptions on the coins.

The study discussed coinage from Yehud. The debate on the existence of a mint in Yehud was addressed. This study supports the view that there was a mint in Yehud, but not necessarily in Jerusalem, that struck the Yehud coinage. The different coins in specie of silver coinage from the Persian period Yehud were discussed and placed on a timeline to identify the coin in specie to which the text of Lev 27:25 refers. Each of the coins in specie discussed was dated to when that specific coin in specie was in circulation.

The uncommon 1/20 parity proved to be the primary aid in identifying the coin in specie to which the text refers. The 1/20 parity is mentioned in Lev 27:25 and four other OT texts (Exod 30:13; Num 3:47; 18:16; Ezek 45:12).

The dating of the Pentateuch is an ongoing debate and therefore I referred only to the current majority view. The finalisation of the Pentateuch occurred during the Persian period, more specifically during the late Persian period, as held by a few but credible scholars. The Pentateuch as an authoritative document is dated to the end of the fourth century BCE.

The article identified one coin in specie which satisfied the requirements of the currency mentioned in Lev 27:25. This coin in specie is the silver *yehud* (commonly known as the Persian king coin), in circulation from 370 to 340 BCE.

In conclusion, the contention is that Lev 27 was written between 370 and 340 BCE, a result obtained by drawing on numismatology to date an OT text.

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