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DEVELOPMENT OF AN ACCOUNTING SYSTEM IN ANCIENT ATHENS IN RESPONSE TO SOCIO-ECONOMIC CHANGES*

The development of accounting principles and the evolution of accounting systems are highly dependent on the socio-economic environment. Although the socio-economic environment of the Golden Age of Greece (5th to 4th Century B.C.), known as the classical period, has received the attention of many scholars, very little has been written about early Greek accounting. The purpose of the present study is to demonstrate that the socio-economic activity which took place in the environment of the Golden Age of Greece (largely centered around Athens) created needs that required the development of an improved accounting system and other financial controls. An attempt has been made (a) to explain the development of an accounting system in the government sector of the Athenian state and (b) to trace the evolution of the system in response to socio-economic needs.

Socio-Economic Developments

In early Athens men were organized into small communities, known as *polis*. Within these groups they found themselves competing for limited economic resources. Natural self-interest and the struggle for survival put social forces into action which created socio-economic inequalities. The strong and sometimes conflicting desires for political power, civic rights, economic power, and wealth created a social class system. Political and economic power was concentrated in the hands of the few, and the powerless masses were mistreated. The aristocrats used their economic power to rule the proletariat who as a result, sought reforms that would offer protection against socio-economic injustice. However, the solving of these problems created a new environment from which new

*Based upon a paper delivered at the Second World Congress of Accounting Historians.

problems emerged. The interacting forces of social reforms such as the redistribution of wealth and the expansion of civic rights made the socio-economic evolution persistent and dynamic. Thus, the environment of Athens before the Golden Age was characterized by an autocratic form of government and a continuous struggle among the social classes for political and economic justice. State and temple resources were either non-existent or very limited due to the limited role of government.

During the Golden Age a new environment was created by some unusual political, social, and economic events. First, the citizens of Athens demanded and achieved a democratic form of government with political and economic justice guaranteed by a constitution. Second, the discovery of silver mines at Laurium created expanded wealth for individuals and provided the government with new revenues to meet defense and other social needs. Third, the development and use of the Athenian currency facilitated financial transactions. In addition, the basic requisites of accounting were present in the Athenian environment. The art of writing and the development of arithmetic and other means of computation, including the adoption of weights and other measurements, facilitated the recording of financial transactions. Finally, the Persian and Peloponnesian Wars created additional needs for revenues for defense purposes and for the care of the population which was now concentrated in the city. The Confederacy of Delos, which contributed so much to the establishment of the Athenian Empire, was an outgrowth of the Persian Wars.

These developments created increasing social needs that had to be met in a responsible manner. Responsibility was assumed by the central government through an increased role in the areas of defense, education, religious needs, and public welfare. The satisfaction of these needs and the continuous accumulation of wealth in the state treasuries created problems in financial administration which could only be solved by the development of a strong state financial system. Effective management of state revenues and expenditures would have been impossible, however, without an accounting system which could be used (a) to control state resources, (b) to establish accountability, and (c) to report the results of operations to the people. For the first time in Greek history an integrated accounting system emerged in the Athenian State as a response to the various needs created by the environment. The elements of this system included (a) an accounting entity in which state financial transactions could be recorded and controlled, (b)

budgets to plan and control the activities of this entity, (c) accounting records showing the execution of such plans, and (d) audits for the verification of results and establishment of accountability. These elements were coordinated and directed towards helping government perform its function in the areas of defense, religion, and public welfare.

The Accounting Entity

The Treasury of Athena of the period 454-407 B.C. is selected as the accounting entity in which the development of the system will be traced. This entity is chosen for two reasons: (a) the use of the temple of Athena as the central treasury by the State of Athens, and (b) the high volume of financial transactions recorded by the Treasury. The latter can be explained by the development of a centralized financial system and the fusion of the state and temple resources into one common (general) fund.

Before the fifth century the function of Greek temples was limited to religious activities at a local level. Thus, the size and scope of their resources were limited. However, in the year 454 B.C., by agreement between Athens and her allies, all funds (5,000 talents) accumulated in the Temple of Apollo were transferred from Delos to the Acropolis where state monies and confederate funds formed a common state fund. These funds could be used as required after approval of the Athenian people and the Council. Under the terms of the agreement, Athens assumed responsibility to rebuild the destroyed temples and provide the necessary protection against any enemy attack. Athens agreed to play a dominant role in providing for the welfare of Greece in exchange for contributions from the allies.

With a later financial reorganization of the state in 449 B.C., the state common funds were diverted into the Temple of Athena and merged with the sacred temple funds, forming a general reserve fund. A centralized system of collections and disbursements was established. This system required that all financial transactions be recorded in the books of the Treasurers of Athena. Thus, the Temple of Athena became a central bank and state treasury. The volume and complexity of the financial transactions of this fund increased continuously with the growth of the state.

Inscriptions and other authoritative sources indicate that all state financial transactions did pass through the books of the Treasurers of Athena. For example, the second decree of Callias required that

"the Hellenotamiae shall deposit with the Treasurers of Athena on the Acropolis all revenues collected during the year."¹ In addition, in the record of expenditures of the Treasurers of Athena in 410-409 B.C. are found three financial transactions in which the Treasurers charged the state for monies collected from the allies (i.e., from Samos) and used directly in the field by the Hellenotamiae.² Current scholars agree that the Hellenotamiae did not keep a separate chest, but instead deposited all their collections on the Acropolis and received back what was needed to finance the Empire.³

The purpose of developing this centralized system of collections and disbursements was to secure better control in the management of state financial resources as their size and scope increased with the growth of the Empire. Waste of funds which might have resulted from collecting and using them locally was avoided. But the most important aspect of this development was the accumulation of financial reserves that could become available immediately to the state in the event of crisis. Public debt financing was unknown in those days and extraordinary expenditures for wars and public works had to be financed from past "savings" of the government. Thus, the Treasury of Athena was used as a kind of central bank to handle and preserve all public funds under the control of the state. Surplus state operating funds could be used for temple purposes and temple funds were used to cover deficits of state operating funds. This structure can be better understood if the function of the treasury and its main cash flows are first explained.

All regular state revenues (most restricted or earmarked) from tributes and other sources flowed into the Treasury of Athena, i.e.; the state treasury, and were allocated to the various operating fund accounts of the goddess Athena. Payments were made from the operating fund accounts to cover current operating expenses (specified by the revenue budget), and any surplus or deficit was transferred to or covered from the Temple fund accounts. This explains how an operating fund could be in a surplus or deficit position during the year. Thus, state funds were combined with Temple funds, and after all expenditures had been paid, the balance left in the Temple fund accounts represented the amount of the state equity. These Temple fund accounts formed the general (also called "iron") reserve fund. This general reserve fund was to cover extraordinary government needs in the areas of defense, religion, and public welfare and measured the financial strength of the state. In the days of Pericles it amounted to about 6,000 talents, excluding the sacred treasures that could very easily be converted into money.⁴ The

total private property of the Athenian citizens and resident aliens at that time amounted to only 5,750 talents,⁵ so the amount of 6,000 talents was a significant proportion of the total wealth of Athens. Themistocles decided not to distribute the state surpluses to the people, but instead to accumulate them in the general reserve fund for future needs of the State. Precautionary requirements (budget authorization or vote of the people) were established to prevent possible misuse of this reserve fund.

In addition to the reserve fund there were operating fund accounts for revenues collected for the normal operating costs of the state and extraordinary revenues to cover war expenditures. These revenues were restricted or earmarked for specific purposes by the use of individualized budgets, as evidenced by the following examples:⁶

1. revenues from tributes were devoted to military expenses and other operating costs of the Confederacy.
2. revenues from mines were earmarked for building ships and welfare.
3. revenues from law courts were devoted to payment of *dikasts* (judges).
4. revenues from direct taxes were earmarked for payment of *agoranomoi* (market inspectors).
5. revenues from liturgies were reserved for public ceremonies.
6. revenues from indirect taxes were devoted to administrative expenses.
7. revenues from *cleruchies* (special contributions imposed on certain citizens by the state) were earmarked for administrative costs.
8. extraordinary revenues were sometimes raised to cover urgent war expenditures.

The Temple fund accounts were increased (a) by the transfer of surpluses from operating fund accounts, as indicated above, (b) by a quota (1/60) paid to the goddess Athena on tributes collected from the allies, (c) by special state grants, such as the original deposit of the 5,000 talents transferred from Delos, and an additional 200 talents per year for 15 years (448-434 B.C.) from tributes, over and above the quota,⁷ (d) by proceeds from confiscated property and booty and (e) by private donations in the form of cash or treasures. Decreases in the reserve fund resulted from covering deficits in the operating fund accounts, and extraordinary expendi-

tures in the areas of public works, religious festivals, military operations, and other unforeseen events. Revenues and expenditures were recorded in these accounts and the surplus or deficit was closed to the Temple fund accounts, i.e., the general reserve fund. The balance in these accounts at a given time represented the size of the general reserve fund, expressed in the form of cash and inventories of sacred treasures. A balance sheet for the treasury at any time would look as follows:

<i>Temple Assets</i>		<i>Liabilities and Equity</i>	
Cash	XX	Operating Fund Accounts of Normal Revenues	XX
Loans Receivable	XX	Temple fund Accounts of the General Reserve	XX
Inventories of Treasures	<u>XX</u>		
Total	<u>XXX</u>	Total	<u>XXX</u>

“Loans Receivable” represented claims of the treasury against the state for temporary “loans” to the state. On the liability side, the operating fund accounts usually had open balances because the individual operating accounts were closed to the general reserve only when the projects or purposes had been accomplished and not at specified time intervals.

Budgeting for Planning and Control

The primary purpose of any accounting system is to provide control in the proper management of financial resources. Accounting controls are attained by developing plans for future action (budgets), maintaining records of actual performance and comparing the results. They are supplemented by administrative and other operating procedures. For a given entity, the total budget should show the over-all financial plan of the entity. Total revenue is allocated to meet various needs according to assumed priorities. Such a system requires a formal expenditures budget for the appropriation of the total revenues to the assumed needs. This is the modern concept of the comprehensive budget but it was unknown during the Golden Age of Greece. A budget system, however, was in use.

The Athenians developed individualized budgets, giving them the name of "encyclic administration." Under this type of budget, the assembly of the people voted definite amounts for definite objectives and at the same time regulated the terms of their disposition.⁸ Thus the individualized budgets constituted joint revenue and expenditure budgets in the sense that all normal revenues were restricted when raised, and the amounts to be raised were determined by prior authorization of the citizens. So the Athenians used several budgets (treasuries) and within each budget the citizens voted upon certain categories of expenditures and revenues were collected and allocated accordingly. The law which specified the use that was to be made of the revenues was called a "regulation." These "regulations" established special funds which remained in existence until the project was completed or as long as that specific public needs had to be met.

The use of individualized budgets seemed to have been preferable because the people wanted to know that the taxes paid were used for intended purposes. The assignment of special revenues to fixed expenses was regarded as essential to the correct administration of funds. This system also facilitated the execution of independent audits.

Special purpose projects were controlled by this method but whether the Athenians used budgets to plan and control activities in the normal operations of the state cannot be established from the available inscriptions. However, there is considerable evidence to the affirmative. For instance, according to Aristotle's *Constitution of Athens* (Ch. 47.3), the vendors, one from each tribe elected by lot, "draw up ten separate lists of those who have to pay in each presidency, and separate lists of those who have to pay three times in the year." This represents an assessment of taxes made in advance, i.e., a budgetary plan of collecting taxes and other state revenues from mines and farming out of all public contracts.⁹

In the area of extraordinary revenues and expenditures, i.e., assessment of tributes to be paid by the allies and appropriations for public works, there is direct evidence of the use of budgetary controls. Exhibit 1 contained in the appendix, an English translation of the assessment of the Athenian Allies for the years 423-425 B.C., is a revenue budget together with full information about the assessment procedures and details concerning their implementation. Exhibit 2 is the budget authorization for construction and repairs of the Parthenon and Propylaea as passed by the council in 434 B.C.

In addition to these budgetary appropriations for expenditures, which could be predicted and therefore planned in advance, the Athenians required specific authorization by the citizens for extraordinary and unpredictable expenditures, such as those for wars. The purpose of these additional controls was to prevent any misuse of the resources of the general reserve fund. Well established procedures were followed in the preparation and execution of these budgets.

Accounting Records of Execution of Budget Plans

Accounting records were maintained for the execution of plans for specific government functions and constituted the basis for the verification of results in the performance of these functions. These accounting records of execution were used to control and establish accountability (a) for collecting budgeted revenues from tributes and other sources, and (b) for payment of expenditures for normal operations of the state, construction of public works, festivals, wars, and other public needs. Collection of revenues and payment of expenditures were authorized by the people through individualized budgets, assessment plans, or specific appropriations and authorizations for extraordinary expenditures as explained above. A close integration existed between the procedures established to record and control the activities connected with the Temple of Athena.

Exhibit 3 in the appendix is a report of the collection of the tribute quotas for the year 425 B.C. As a matter of interest, a table (exhibit 4) has been prepared comparing the actual collections for the year 425 B.C. with the assessments for that year. These relationships demonstrate the existing integration of the elements of the system. Exhibit 5 is a report of actual amounts received by the commissioners for the budgeted construction of the Parthenon and an accounting for the expenditures and year ending balance of funds in their hands.

The Verification Process and Reporting

Accountability and control of state revenues and expenditures was also achieved through the verification process by the three boards of state accountants, based on the accounting records of execution and the related budgetary and other documents. More specifically, the purpose of this process was (a) to strengthen the integrity of the accounting system by providing additional controls

in the management of state resources, (b) to establish accountability against any public officials in charge of public funds, and (c) to provide dependable reports to the people and to Athens' allies on the management of these funds.

The first board of Council Accountants dealt with the keeping of accounts of public officials and with internal audit. The second board of Administration Accountants executed an independent audit and presented the results to the jury-court for public hearing. After this hearing, the auditors reported the findings to the public by engraving in marble some of the accounts and exhibiting them on the Acropolis. Through this requirement for audit and public reporting, every citizen was informed of the management of public funds. The third board of Examiners dealt with cases in which a public official was accused, after he had rendered his accounts to the Administration Accountants and had appeared in the jury-courts. In the State of Athens no one who was in charge of public funds either directly or indirectly was exempted from such verification.

Summary

Government functions and the related public needs in Athens changed over time as required by changes in the socio-economic environment. These changes brought about the development of an evolving accounting system. A series of major socio-economic changes occurred in Athens during 454 to 407 B.C. As democracy, as a form of government, developed further the government's role in satisfying public needs increased and new revenues were needed to meet the required expenditures. For proper control of public funds and establishment of accountability against public officials, the constitution required the keeping of records of normal revenues and the apportionment of these revenues to the various magistrates to meet specific expenditures. It also required that the management of public funds be subject to verification by state auditors.

The Persian Wars which led to the formation of the Confederacy of Delos also had an important influence on the accounting practices of the Greek States. Additional revenues were needed from tributes to meet the required expenditures for defense. As a result, accounting records of collections and expenditures were needed to record and control these financial transactions. The agreement for the transfer to Athens of the Delian funds resulted in the Athenian assessments of tributes and the related budgetary appropriations. Records of execution were required for expenditures for defense

and for the construction of public works and festivals. Similarly, the Peloponnesian Wars required an increase in government spending. The increasing scope of state financial activity required the development of a more sophisticated accounting system and more efficient administrative procedures for better control of the state financial resources. The need of Athens to keep the other members of the Confederacy informed led to the development of improved reporting of both revenues and expenditures. Creditability was added to these statements by internal and independent audits of the statements by three boards of state accountants created for that purpose.

The emergence of an integrated accounting system and highly developed administrative controls in the Athenian state of the Golden Age occurred as a natural response to these socio-economic needs created by the environment.

FOOTNOTES

¹Tod, pp. 104-106.

²Tod, pp. 202-204.

³Meritt, p. 365.

⁴Meritt, p. 338. For more details on the evolution of the iron reserve fund see pp. 326-358.

⁵Ferguson, p. 166.

⁶Andreades, pp. 268-368.

⁷Meritt, p. 328.

⁸Andreades, p. 366.

⁹Rackham, p. 131.

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APPENDIX

Financial Records of the Athenian State Related to The Golden Age of Greece

EXHIBIT 1

ASSESSMENT OF TRIBUTE TO BE PAID BY THE ATHENIAN ALLIES FOR THE PERIOD 425-423 B.C. (Partial Translation)

Gods—Assessment of Tribute

(FIRST DECREE)

Resolved by the Council and Demos, while Leontis was the tribe in prytany, (. . .) on was secretary, and (. . .) was the presiding officer. Thoudippos made the motion:

A. *The Current Assessment* (lines 4-26)

1. The Demos shall send heralds to be elected by the Council from those who receive pay, to the cities, two to Ionia and Karia, two to Thrace, two to the Islands, and two to the Hellespont. These shall announce in the commune of each city that representatives are to come (to Athens) in the month of Maimakterion.

2. The Demos shall elect by lot 30 *eisagogeis*. These are to choose a secretary and an assistant secretary from the entire citizen body.

3. The Council shall select ten men (*taktai*) to assess the tribute. These shall enroll the cities within five days of the time they are selected and swear their oaths, or for each day of them shall pay a fine of 1,000 drachmai.

4. The administrators of the oath shall swear in the *taktai* on the very day of their selection, or each administrator shall be subject to the same fine.

5. The *eisagogeis* shall care for the adjudications concerning the tribute according as the Demos may vote. They and the archon and the polemarch shall hold preliminary interrogations of the cases in the *Heliaia* (building), as is done with the other cases, namely, those which came before the *heliasts*.

6. If the taktai do not assess tribute on the cities according to the adjudications, each of them shall be subject at his *euthyna* according to the law to a fine of 10,000 drachmai.

7. The *nomothetai* shall establish a new court of one thousand jurors. Since the tribute has become too small, they (the jurors) shall join with the Council in making the current assessments, just as in the last administrative period, all in due proportion during the month of Posideion. They shall also deliberate daily from the first of the month in accordance with the same procedure in order that the tribute may be assessed in the month of Posideion.

8. The Council shall deliberate in full session and continuously in order that the assessments may be effected, unless the Demos votes otherwise. They shall not now assess a smaller amount of tribute on any city than it has been paying previously, unless because of impoverishment of the country there is a manifest lack of ability to pay more.

9. This recommendation of the Council and this decree, together with the amount of tribute assessed on each city, shall be inscribed by the secretary of the Council on two *stelai* of stone, one of which he shall erect in the *Bouleuterion*, the other on the *Akropolis*. The *poletai* shall let the contract, the *kolakretai* shall provide the funds.

B. Future Assessments (lines 26-33)

1. In the future, announcements concerning the tribute shall be made to the cities before the Great Panathenaia.

2. The prytany which happens to be in office shall introduce the business of assessments at the time of the Panathenaia. If the prytaneis do not then introduce this to the Demos and if they do not vote a court concerning the tribute and if they do not deliberate in their own term of office, each one of the prytaneis shall be subject to a fine of 100 drachmai to be consecrated to Athena Nike and 100 to be paid to the public treasury, and each one shall be subject at his *euthyna* to a fine of 1,000 drachmai; and if anyone else introduces a motion that the cities shall not be assessed at the time of the Great Panathenaia in the time of the prytany which holds office first in the year, he shall be deprived of civic rights and his property shall be confiscated and a *tenth* given to the goddess.

C. Provision for Action (lines 33-38)

1. These proposals shall of necessity be brought before the Demos by the prytany of Oineis as the first item on the agenda after

the religious business on the second day after the expedition returns.

2. If the business is not finished on this day there shall be continuous deliberations about it beginning immediately on the following day until it is finished within the time of the prytany named.

3. If the prytaneis do not bring the matter before the Demos or do not complete the business during their own term of office, each one of them shall be subject at his euthyna to a fine of 10,000 drachmai on the ground of preventing the contribution of *phoros* to military expeditions.

D. *Details of Assessment Procedure* (lines 38-51)

1. The heralds who are summoned are to be brought by the public summoners, in order that the Council may judge them if they do not seem to be performing their duties correctly. As for the routes of the heralds who are to travel, the taktai are to prescribe these, indicating how far they shall proceed, in order that they may not journey uninstructed. The heralds shall be compelled to announce the making of the assessments to the cities wherever the (local) archontes shall deem it best. The Demos shall vote on what must be said to the cities about the assessments and the decree, and on any other matter of urgency which the prytaneis may introduce.

2. As soon as the Council effects the assessment of the tribute, the generals shall see to it that the cities pay the tribute, in order that the Demos may have sufficient money for the war.

3. The generals shall give consideration to matters of tribute, each year, after investigating first, on land and sea, how much must be spent for military expeditions or for any other purpose. They shall regularly introduce suits which concern this subject at the first session of the Council without consulting the Heliiaia and the other courts, unless the Demos votes that they shall introduce them after the *dikastai* have first made decision.

4. The kolakretai shall provide the pay for the heralds to travel.

(RIDER)

(. . . .) moved:

1. That the resolution of the Council be adopted with the following amendment: those assessments which may be determined for individual cities after appeal shall be laid by the prytaneis who then happen to be in office and by the secretary of the Council before the court when it deals with the assessments, in order that the *dikastai* may give their concurrence.

(SECOND DECREE)

Resolved by the Council and Demos, while Aigeis was the tribe in prytany, Philippos was secretary and (. . .) oros was presiding officer. Thoudippos made the motion:

1. All those cities assessed tribute in the year of the Council for which Pleistias was first secretary, in the archonship of Stratokles, shall bring to the Great Panathenaia a cow and a panoply of armour.

2. They shall take part in the festival procession in the same manner as colonists.

(THE RECORD OF ASSESSMENT)

Tribute was assessed upon the cities as follows by the Council for which Pleistias (. . .) was first secretary, in the archonship of Stratokles, in the term of office of the eisagogeis for whom Ka (. . .) (. . .) was secretary:

A. *Tribute from Islands*

30 talents	Parioi
15 "	Naxioi
15 "	Andrioi
9 "	Siphnioi

(The record continues with some more names of cities and then a sub-total of 163 talents, 410 drachmas and 3 obols from this tax district is drawn.)

B. *Ionian Tribute*

. . . talents	Pediois from Lindou
1/3 "	Halkiatae
10 "	Kavnioi
. . . "	Erythraioi

(The record continues with some more names of cities and then a sub-total of tribute from this district is drawn.)

C. *Hellespontine Tribute*

. . talents	Byzantioi
. . "	Lamfsakenoi
. . "	Perinthioi
. . "	Selymbrianoi
. . "	Tenedioi
20 "	Kyzecene

(The record continues with some more names of cities and then a sub-total of tribute from this district is drawn.)

D. Tribute on Seashore Cities

(Similar pattern is followed for this district.)

E. Thracian Tribute

75 talents	Avderitae
60 "	Thassioi
21 "	Maronitae
15 "	Samothrakes
15 "	Toronaioi
. . "	Skionaioi
. . "	Neopolitae
. . "	Peparithioi
. . "	Akanthioi
. . "	Aeniatae
. . "	Argillioi

(The record continues with some more cities and then a sub-total of 310 talents and . . . drachmas from this tax district is drawn.)

F. Tribute from Pontos

(Similar pattern in listing the cities and the amounts if followed for this district also. Then, at the end of the record the sub-totals of the six tax districts are added and a grand total of 1,460 talents assessed for the period 425-423 B.C. is drawn.)

Source: Meritt, et al., pp. 40-43.

Notes: 1. The exhibits included in the present study represent partial translations made by the author from the original records that are found in the sources cited.

2. According to the Athenian currency system, one talent included 60 minas, one mina 100 drachmas, and one drachma 6 obols.

EXHIBIT 2

**BUDGET AUTHORIZATION FOR THE CONSTRUCTION
OF THE PARTHENON AND PROPYLAEA
Second Decree of Callias Passed in 434 B.C.
(Partial Translation)**

“It was decided by the Council and the people. When Cecropes served as a prytanes, Mnesitheos as a secretary and Eupithes as a Supervisor, Callias moved:

Pedestals made of stone, golden emblems of victories, and the Propylaea should be constructed, repairs should be made starting from the Southern part of the Acropolis, as authorized, and ten talents (i.e., 60,000 drachmae) per year should be spent from Athena's funds, until the buildings have been constructed and repaired.

The Treasurers of Athena being responsible for these works, shall order the architect to prepare plans for the other buildings like those of the Propylaea. The architect along with the commissioners on public works shall supervise the works so that the Acropolis is decorated in the most excellent and splendid way and the works are completed." (lines 1-12)

Source: Tod, pp. 104-106.

EXHIBIT 3
COLLECTION OF QUOTA OF TRIBUTE
PAID TO GODDESS ATHENA
FOR THE YEAR 425 B.C.
(Partial Translation)

In the third archonship of which was secretary, the Hellenotamiae were (the names of the Hellenotamiae are listed in the official order of their tribes).

A. *Ionian Cities*

Pediois from Lindou	. . .	drachmas
Kavnioi	. . .	"
Halkiatae	. . .	"
Erythraioi	. . .	"

B. *Thracian Cities*

Avderitae	1,000	drachmas
Thassioi	3,000	"
Maronitae	300	"
Samothrakes	200	"
Toronaioi	1,200	"
Skionaioi	900	"
Neopolitae	50	"
Peparithioi	300	"
Akanthioi	300	"
Aeniatae	16	" and 4 obols
Argillioi	16	" and 4 obols

C. Hellespontine Cities

Byzantioi	2,157	drachmas
Lamfsakenoi	1,045	"
Perinthioi	1,000	"
Selymbrianoi	900	"
Tenedioi	285	" and 3 obols
Kyzecene	858	" and 2 obols

D. Island Cities

(The names of the cities and the amounts are entirely lost.)

Source: Hicks, pp. 80-81.

EXHIBIT 4
COMPARISON OF ASSESSMENT
AND COLLECTION OF QUOTA OF TRIBUTE
FOR THE YEAR 425 B.C.

<i>Allied Cities of the Athenian State</i>	<i>Total Tribute Assessed</i>	<i>Athena's Quota of Tribute</i>		
		<i>Budgeted Amount (1/60)</i>	<i>Collected Amount</i>	<i>in Arrears (Balance)</i>
A. Thracian Cities				
Avderitae	450,000	7,500	1,000	6,500
Thassioi	360,000	6,000	3,000	3,000
Maronitae	126,000	2,100	300	1,800
Samothrakas	90,000	1,500	200	1,300
Toronaioi	90,000	1,500	1,200	300
Skionaioi	missing	missing	900	missing
Neopolitae	"	"	50	"
Peparithioi	"	"	300	"
Akanthioi	"	"	300	"
Aeniatae	"	"	16+	"
Argilioi	"	"	16+	"
B. Hellespontine Cities				
Kyzecene	120,000	2,000	858+	1,142
Byzantioi	missing	missing	2,157	missing
Lamfsakenoi	"	"	1,045	"
Perinthioi	"	"	1,000	"
Selymbrianoi	"	"	900	"
Tenedioi	"	"	285+	"
C. Ionian Cities				
Halkiatae	2,000	37	missing	missing
Kavnioi	60,000	1,000	"	"
Erythraioi	missing	missing	"	"
Pediois from Lindou	"	"	"	"

Sources: (1) Total tribute assessed in drachmas as indicated in exhibit 1.

(2) Quota of tribute collected in drachmas as indicated in exhibit 3.

EXHIBIT 5
EXPENDITURES FOR THE CONSTRUCTION
OF THE PARTHENON
FOR THE YEAR 434 B.C.
(Partial Translation)

A. *Amounts Received*

The following amounts were received by the commissioners on public works during the year when Anticles was their secretary, on the fourteenth Council when Metagenes was first secretary and Kratetos was archon of the Athenians:

1. Balance from the previous year, 1,470 drachmas, 70 Lampsacene and 27-1/6 Cyzicene golden staters. (lines 1-16)
2. From the treasurers of Athena of whom Labreus was secretary, 25,000 drachmas. (lines 17-20)
3. From sale of gold, having weight of 98 drachmas, 1,372 drachmas. (lines 21-23)
4. From sale of ivory, having weight of 20 talents and 60 drachmas, 1,305 drachmas and 4 obols. (lines 24-26)

B. *Amounts Spent*

1. For rentals, . . . drachmas. (line 30)
2. Wages to workers who quarried and loaded marble at Pentelicus, 2,226 drachmas and 2 obols. (lines 31-33)
3. Paid to statuaries on pediment-sculptures, 16,200 drachmas. (line 34)
4. Salaries to staff members, 192 drachmas. (lines 35-36)
5. Other construction costs, 1,800 drachmas. (line 37)

C. *Amounts Left at the End of the Year*

1. 70 Lampsacene and 27-1/6 Cyzicene golden staters. (lines 40-43)
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Source: Tod, pp. 112-113.