Shepherds, Merchants, and Credit: Some Observations on Lending Practices in Ur III Mesopotamia

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SHEPHERDS, MERCHANTS, AND CREDIT: SOME OBSERVATIONS ON LENDING PRACTICES IN UR III MESOPOTAMIA

BY

STEVEN J. GARFINKLE*

Abstract

The numerous surviving loan documents from the Ur III period illustrate the vital role that credit played in the early Mesopotamian economy. The availability of credit was critical at every level of society. In this article, the form and function of credit in the Ur III period are described, along with lending practices and the activities of individual creditors. Despite the overwhelming scale of the institutional economies, there was significant room for non-institutional households to pursue economic gains through money-lending. This entrepreneurial activity took place in an economy that was familiar with a sophisticated range of possible credit transactions.

Les nombreux documents de prêt qui survivent de l'époque de la Troisième Dynastie d'Ur illustrent le rôle essentiel que le crédit joue dans l'économie mésopotamienne archaïque. À chaque niveau de la société disposer de crédit était d'une importance essentielle. Cette contribution décrit les forme et fonction du crédit à la période d'Ur III, les pratiques de prêt et les activités des créanciers. En dépit de la grande taille des économies institutionnelles, il existait un secteur important où des maisons non-institutionelles pouvaient faire des gains en prêtant à intérêt. Cette activité d'entrepreneur s'exerçait dans une économie qui possédait une gamme sophistiquée de transactions de crédit.

Keywords: Ur III, credit, customary loans, antichretic loans, productive and consumptive loans

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This article is a considerable revision and expansion of a paper presented at the 210th Annual meeting of the American Oriental Society. In an article on the subject of debt, it is a particular privilege to recognize some of my own. In the preparation of the original paper, I was fortunate to have the assistance of Seth Richardson (who also read and commented on a draft of this lengthier article) and Jason Freitag, each of whom suggested significant improvements. Niek Veldhuis also read a copy of that early paper and provided some very productive criticism. This article has benefited enormously from the advice and guidance of Marc Van De Mieroop, who has always been an extremely forgiving creditor. I am also grateful to Norman Yoffee and the two reviewers of this article for their comments and assistance. Much of my discussion of credit is adapted from my dissertation, *Private Enterprise in Babylonia at the End of the Third Millennium B.C.* (Ph.D. Diss. Columbia University, 2000), which includes a more complete analysis of debt and non-institutional archives in the Ur III period. My revised dissertation will appear as a volume of *Cornell University Assyriological Studies (CUAS).*

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INTRODUCTION

Few topics are as richly documented in the cuneiform record as the practice of borrowing and lending; and few eras are better documented than the Ur III period at the end of the third millennium BC.[1] In a largely agrarian society, the availability of credit is a functional necessity. The Ur III period was no exception, and lending in this era was characterized by both individual and institutional creditors. At the same time, our large collection of texts on credit are among the most laconic in cuneiform literature. Analyzing loan documents brings with it the further problem of assessing economic motivation in antiquity. Only rarely do our texts tell us why two parties entered into a loan agreement; and we cannot even be certain what the survival of the tablets indicates.[2]

This article offers a general assessment of credit practices in southern Mesopotamia at the end of the third millennium BC, and in doing so it examines the nature of the surviving documentation. We are assisted in this endeavor both by the size of the corpus, and by the tremendous amount of scholarly work that has been devoted to understanding the Ur III state. Therefore, there are advantages to analyzing lending during this period, and these extend beyond improving our knowledge of that particular era. This study results in a better understanding not only of the operation of the Ur III economy, but also of broader socio-economic developments in early Mesopotamia.

Credit transactions played a significant role in the institutional and non-institutional economies of southern Mesopotamia at the end of the third millennium BC. The activities of creditors frequently defy easy categorization according to modern economic terms. Therefore, we cannot simply apply the terminology of "public" and "private" to the economic behavior of entrepreneurs in ancient Mesopotamia. Despite the overwhelming scale of the institutional economies of the Ur III period, there was still significant room for the economic interests of non-institutional households pursuing their own gain. Moreover, the persistence of local and regional customs and hierarchies presented opportunities for individual entrepreneurs acting as creditors.

To begin, we need a working definition of what constitutes a loan, in order to distinguish loan documents from other types of documents, such as simple

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[1] 2112-2004 BC according to the Middle Chronology.

[2] We need to be cautious about making assumptions when we encounter familiar practices, such as lending, in antiquity. As Steinkeller (2001: 48) recently noted, ". . . although ancient loaning practices may appear to share *formal* similarities among themselves, and may seem to be *formally* identical with or at least analogous with modern loaning practices, one must assume that in each case we are dealing with a different phenomenon, whose precise nature is determined by the economic and social context in which it occurs."

receipts and other transfers of property, that often used similar terminology. The fundamental difference between these classes of textual material was the expectation of repayment. A loan document can be readily defined as any agreement that required the repayment of the principal to the creditor.

The following discussion of credit is divided into four parts. First, typologies will be established for both the form and the function of loans. Second, the terminology of the loan documents themselves will be discussed. Third, lending practices will be examined. In particular, I will describe those practices related to interest and to the preservation of loan documents. Finally, the behavior of creditors will be described, focusing on the lending activities of non-institutional creditors.[3]

A Typology of loans in the Ur III period

The loans that were issued in the Ur III period took three primary forms: customary loans, interest-free loans, and antichretic loans.[4] Within these categories of loans we can also further distinguish between two types of loans on the basis of their function: consumptive loans and productive loans.

A Typology of form: Customary, Interest-free, and Antichretic

The largest category of loan documents was customary loans, which were issued in a variety of commodities, including silver, barley, and wool, and required the repayment of the principal along with interest. The basic characteristic of customary loans was that they employed a standard terminology (discussed in detail below in the section on terminology). In some cases the time of repayment was expressly indicated in the text, but this was clearly not a requirement.[5]

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[3] The reader should be alerted that I have chosen to avoid the language of private and public as far as possible. The use of modern terminology can be misleading in discussions of the ancient economy. Describing a Mesopotamian temple as a participant in the public sector of the economy may promote the idea that that temple behaved in the same manner as a public sector entity in our own economy. Such a view makes it more difficult to assess the operation of an ancient institution in its own historical context. I use the terms institutional for what we traditionally view as the public sector and non-institutional for what we would regard as the private sector. I have discussed this issue at length elsewhere; see, for example, my forthcoming chapter in the *Blackwell Companion to the Ancient Near East.*

[4] There are additional categories of loans attested in ancient Mesopotamia, such as bottomry loans; however, these other types of loans are rare in the Ur III texts. There are also other categories of texts, such as promissory notes and lawsuits that further attest to lending activities.

[5] A clause requiring repayment by a specific date appears most frequently in interest-free

In contrast to the first category of loans, interest-free loans obviously lacked a provision for the payment of interest. In many of the cases where a date of repayment was indicated, the loans were interest-free loans, and interest-free loans in the Ur III period were usually issued for short durations, often not exceeding one month.[6] Some of these loans, issued in barley, may have been attempts by the debtors to alleviate temporary crises within their households. The creditors in such cases may have been a member of the debtor's extended family or the debtor's superior within a patrimonial or professional organization.

Many loans that did not indicate interest were probably fictitious arrangements in which goods were "loaned" to a craftsman for production.[7] Such work loans were really receipts documenting a work order and the transfer of raw materials. Frequently, these texts did not detail the arrangements of the agreement, but they often provided penalties for a failure to deliver the finished goods.[8] The regular penalty was a payment of twice the value of the original loan. These "doubling clauses" were very common in the Ur III period, and such penalties may have originated in commercial transactions for the purchase

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loans, which were ordinarily of a short duration (for example: *MVN* 8 165, 166, 167, and 171), and in consumptive, or harvest, loans (for example: *MVN* 8 153, and 154; *ZA* 93/2 4; *MVN* 13 896 + 897), which usually required repayment after the harvest.

[6] *TMHC NF* 1/2 31 is an example of a one month loan that was advanced without interest: 12 1/2 gín kù-babbar máš nu-tuku/ ki Lú-^{d}EN.ZU-ta/ Lú-ša$_{6}$-ga/ šu ba-ti/ Witnesses/ iti šu-numun-a u$_{4}$ 1 ba-zal/ iti sig$_{4}$ gi$_{4}$-gi$_{4}$-dam/ mu-lugal-bi ì-pad$_{4}$/ Year/ Seal: Lú-ša$_{6}$-ga/ dub-sar

> Lu-šaga received 12 1/2 gín of silver without interest from Lu-Suen on the first day of the 3rd month. He swore in the name of the king to return it in the 4th month. Witnesses. Year. Seal: Lu-šaga, the scribe.

There are numerous examples of such short-term loans. See also *YOS* 4 51, 52. Within the Nippur texts, the 4th month was a frequent month for the repayment of these loans, and this phenomenon requires further study.

[7] On the question of work contracts and related legal and economic problems in the non-institutional economy, see Neumann 1996: 254-64.

[8] For example, in the transaction shown below, a silversmith was the debtor, and the customer who advanced him the silver was the creditor. The silversmith was to return all of this silver by a certain month. If he did not return the silver (presumably in the form of a worked object) he had to weigh out barley to the creditor after the harvest. The penalty amounted to a doubling of the original loan.

NATN 266: 1/3 (ša) 5 gín kù-babbar/ ki Á-zi-da-ta/ Šu-aš-lí šu ba-ti/ iti apin-du$_{8}$ Nibru^{ki}-šè/ kù-babbar sag-bi gi$_{4}$-gi$_{4}$-dam/ tukum-bi nu-gi$_{4}$/ egir buru$_{14}$-šè 2.0.0 še gur-ta/ ì-ág-e/ Witnesses/ Date/ Seal: Šu-áš-li kù-simug/ dumu Šar-ru-um-ba-ni

> Šu-ašli received 25 gín of silver from Azida. He will return the silver in its entirety in month 8 in Nippur. If he does not return it, he will weigh out 2 gur of barley for each shekel of silver after the harvest. Witnesses. Date. Seal: Šu-ašli, the silversmith, son of Šarrum-bani.

of goods or the commissioning of finished products. Such transactions, which did not originally involve the charging of interest, may have necessitated such a significant penalty.[9]

Antichretic loans were characterized by arrangements in which borrowers pledged labor as interest on a loan. In antiquity such agreements covered a wide variety of possibilities, including the promise of the labor of dependents of the borrower. The category of antichretic loans can be divided into two broad groups. In all of the antichretic agreements, the creditor sought to acquire labor; however, in some cases the labor involved was that of an individual while in other cases the labor involved was that of a group. The first set of antichretic loans more frequently included advances in silver. The labor pledged as interest, or as surety, on these loans was that of a skilled dependent laborer, or a slave, of the debtor.[10] The second set of antichretic loans usually involved advances of barley, and the interest was paid in agricultural labor controlled by the debtor.[11]

A Typology of function: Productive and Consumptive

All interest bearing loans in the Ur III period can be divided into two broad categories on the basis of their function: consumptive loans and productive loans.[12] The impetus behind these loans was very different. The majority of the extant loans from the Ur III period were advances of barley or silver, and we can draw a rough distinction between consumptive and productive loans on the basis of the commodity involved. Productive loans were usually made in silver, and consumptive loans were advanced in grain. Both types of loans could be received on an antichretic basis. Productive loans were sought by debtors because the capital requested would be used to improve the material circumstances of the household. Essentially, then, the interest on such loans was the cost of these improvements. In these arrangements, both the creditors and the debtors were seeking some economic advantage from the transaction, but neither was coerced into the transaction.

In consumptive loans the debtor was seeking the loan in order to provide for the immediate subsistence of his own household. These loans were almost always of shorter duration, and were most often harvest loans. That is, loans

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[9] For an example of a probable purchase agreement involving a doubling penalty, see *TMHC NF* 1/2 63. For a discussion of these penalties, see Limet 1969.

[10] See, for example, *MVN* 8 168, *BE* 3/1 19 (which appears to have had a duration of 4 years), and *NATN* 366.

[11] See, for example, *JCS* 23/4 8, *Eames Coll.* TT 11, and *TIM* 3 149.

[12] For a similar categorization of loans, see Van De Mieroop's (2002) summary of credit in Mesopotamia where he differentiates between agricultural and commercial loans.

that had to be repaid, with interest, out of the next harvest. However, harvest loans could, on occasion, also be productive.[13]

The usual interest rates in the Ur III period were 33% for barley loans and 20% for silver loans. The discrepancy resulted from the fact that most of the barley loans were undertaken during the few months prior to the harvest, when barley was particularly scarce, and these loans were repaid after the harvest, when barley was plentiful and at its lowest value relative to silver.[14] The 33% interest rate charged on barley loans was designed to preserve the real value of the loan for the creditor. This does not mean that silver loans could not be consumptive, but only that barley loans were more frequently given for short durations.

In a recent article, Piotr Steinkeller (2002) has offered a detailed assessment of lending practices in Ur III Babylonia. I find his description of the typical money lender especially attractive. His portrait of the creditor indicates that he was a professional, often associated with the royal sector, who held a šuku allotment and had the resources, in barley, silver, and draft animals, to cultivate his allotment and to pursue the control of additional allotments (Steinkeller 2002: 117). What this individual lacked, according to Steinkeller, was the necessary labor to work the land that he could acquire. This raises a crucial issue for observers of the Ur III economy: the shortage of available labor.[15] Our recognition of this problem is central to our understanding of the Ur III economy. In the absence of a free labor market, the scarcity of agricultural labor placed stress on households engaged in the agrarian economy. However, I am convinced that Steinkeller (2002: 118) has gone too far in asserting, regarding the non-institutional money lender, that "most of his lending operations were undoubtedly directed towards the acquisition of labor and land."

The conclusion that most of the non-institutional loans in the Ur III period were issued in the hope, not of repayment, but of acquiring the labor of the debtor is dependent on four assumptions. First, that there was an acute shortage of agrarian labor available to individual households. Second, that most of the debtors were relatively poor and not in a position to meet their financial oblig-

[13] See *ZA* 93/2 4. This harvest loan involved an amount of grain too large to have been intended for the subsistence of a single household. (See also below, note 18.)

[14] See Van De Mieroop 2002: 84-5 for another perspective on the origins of the different interest rates.

[15] The scarcity of labor in the Ur III period has also been discussed by van Driel, see van Driel 1998 and 1999. Van Driel has detailed the way in which labor, which was only extensively required during specific times of the year, became the limiting factor in the Ur III economy.

ations to their creditor.[16] Third, that a significant percentage of the loans issued in the Ur III period were not repaid. Fourth, that the lenders were not motivated by the desire to profit from the payment of interest but hoped to gain from the eventual default of the debtor. Only the first of these assumptions is warranted by the evidence from the Ur III period.

The non-institutional archives from the Ur III period indicate that the borrowers were frequently members of the highest echelons of their society.[17] These borrowers were not subsistence farmers living perilously close to poverty and the necessity of debt bondage. We can only speculate as to why prominent officials and affluent individuals would have required loans in the Ur III period, but they undoubtedly sought out credit. Some of our confusion may arise from the modern assumption that the interest rates charged in the Ur III period were usurious, but we are not sufficiently familiar with Sumerian society to know if this was the case or not. We also know that interest bearing loans were extended to family members.[18] There is no reason to suspect that such loans were advanced to bring about the ruin of the creditor's relative. The relationship between SI.A-a and his brother Naḫarum may be an isolated example, but I rather suspect that it was close to the norm of creditor and debtor relations in the Ur III period, and was therefore not exceptional.

We will never be able to decide what percentage of loans were not repaid in the Ur III period, but the mere preservation of the loan documents in the archaeological record should not be taken as evidence of default.[19] Loans survived in considerable numbers for two reasons. First, loans were issued for a

[16] This suggestion rests in part on our knowledge of the debt slavery that existed in the Old Babylonian period, and which may have precipitated the royal edicts of debt remission in that era. In this sense, the patterns of the Ur III period are perceived as a precursor to the growth of debt slavery in the succeeding era. At the same time, attestations of debt slavery in the Old Babylonian period are not taken as indications of the absence of commercial or productive loans.

[17] SI.A-a, a chief shepherd, was a prominent creditor in the Ur III period, and his debtors included members of the military hierarchy, such as ugula-geštas (*MVN* 13 890 + 891) and nu-bàndas (*TIM* 3 149), as well as prominent officials of the temple estates, such as nu-bànda gu_4s (*Eames Coll.* UU 16) and šabras (*MVN* 13 908 + 909). SI.A-a's archive, which consists of seventy-six texts, is the largest extant non-institutional archive available for study from the Ur III period. For an overview of the archive, see Garfinkle 2003.

[18] For example, SI.A-a issued at least two interest bearing loans to his brother Naḫarum (*ZA* 93/2 4 and *MVN* 13 902 + 903). *ZA* 93/2 4 was a massive advance of 23 gur (6900 liters) of barley. I believe that this loan, which was to be repaid after the harvest, was obtained by Naḫarum in order to finance his acquisition of labor for the harvest season, but that does not change the nature of his obligation to SI.A-a.

[19] We must also be wary about any quantitative conclusions we attempt to draw from the survival of documents in the cuneiform record (see Civil 1980). Even our analysis of the

longer duration than we ordinarily assume; and second, in many instances there was no legal requirement that the loan document be destroyed upon repayment (these points are addressed at length below in the section on lending practices).

The suggestion that the creditors of the Ur III period were not primarily motivated by the desire for profit through the payment of interest involves us in the difficult question of evaluating economic motives in antiquity. The familiarity of the modern audience with the idea of money-lending at interest leads to the presumption of the profit motive whenever we encounter this institution in the ancient world. But can we prove that the Ur III creditor was motivated by a desire to recover interest rather than labor (or land) and that this constituted a pursuit of profit? Yes, I am convinced that we can document the concern of the lender for his interest. The promissory notes and court documents that are preserved, for example, in the Ur-Nusku archive from Nippur illustrate the lengths to which creditors went to recover both their principal and the interest that they were owed.[20] In these texts, the promised payments were often substantial, as were the penalties for failing to satisfy the creditor.[21] Yet in many cases, despite the scarcity of labor, the value of the loans greatly exceeded the potential value of the debtor's labor.

Finally, the very existence of antichretic loans in the non-institutional archives should cause us to look for a motive other than the acquisition of labor behind the non-antichretic loans. The antichretic loans form a small percentage of the total corpus of loans for the entire period under discussion. It is not warranted to assume that the majority of the customary loans were advanced for the same purpose as the antichretic loans. The motivation behind the customary

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overall activity of creditors must be advanced with care. "Thus some individual who is known to have issued a string of loans, may have been a professional money-lender living off the interest he acquired, a conclusion that is most often drawn by modern scholars. Yet, it is also possible that the loans preserved form only a tiny fraction of his economic activities. He may have been a large land owner enjoying the income of his estate, who on special occasions issued credit." (Van De Mieroop 1997: 16)

[20] These categories of texts involve either the promise or the demand of repayment of a debt. For an example of a court document, see *NRVN* 1 49. The distinguishing characteristic of most of the court documents was the presence of the verb du_{11}, usually in the form ì-na-an-du_{11}, "he said to him." The use of this construction implies that the speaker was making a verbal allegation before witnesses against another individual or group of individuals. For an example of a promissory note, see *TMHC NF* 1/2 40.

[21] In *NRVN* 1 49, Ur-Nusku demanded repayment of his silver from Ša-kuge. Ša-kuge promised to return the silver, and its interest. If he failed to do so by the specified date, he would pay double the amount owed. The amount involved, 2/3 mana of silver, would have been sufficient to purchase several male slaves. In *TMHC NF* 1/2 40, the silver that was promised was specifically identified as a payment of interest on silver.

loans, especially on the part of the lender, was not indicated by the texts themselves. In the absence of this crucial information, I see no reason to presume that ordinary loans were anything other than their content indicates: interest-bearing obligations, the issuing of which was rewarding to the creditor, and the receipt of which may have been an economic necessity for the debtor. This does not mean that customary loans could not result in debt slavery, but only that this was not the primary intent of the creditor in all such arrangements.

TERMINOLOGY

In this section, the terminology for customary, interest-free, and antichretic loans is examined in detail. The terms employed in the loan documents provide the clearest means of differentiating between the various forms of loans.

Terminology: Customary Loans

The customary loans in the Ur III period followed the same basic layout and employed the same terminology:

> x gur še or x gín kù-babbar ur$_5$-ra / ki PN1-ta / PN2 šu ba-ti / Witnesses / Date / Seal of PN 2
> x amount of barley or silver, as a loan with interest, from PN1, PN2 received. Witnesses. Date. Seal of the recipient.

Further clauses, indicating the precise interest rate or the exact terms of repayment might have been included in the loan documents, but such additional clauses were not necessary. The presence of witnesses or the seal of the debtor, however, was always required. Any information added to the basic structure indicated that the loan was subject to some further conditions that were out of the ordinary. Such conditions might have been an unusual interest rate[22] or details concerning the repayment of the loan.[23]

Under most circumstances, the only information contained in the loans of this period was the amount and commodity of the principal of the loan, the identities of the borrower and the lender, the interest rate to be charged, the names of the witnesses, and the date, usually only the year, on which the loan was advanced. In the Ur III period, the terms of customary loans were indicated in one of two ways. Either the interest rate was expressed numerically, or it was specified with the use of certain stock phrases. In the majority of the loans from

[22] For example, *MVN* 8 153 specifies an interest rate of 25%.
[23] For example, *TIM* 3 150 specifies the precise month of repayment.

this period, the usual rates of interest were 20% for silver loans (indicated numerically with the phrase: máš 5 gín 1 gín-ta, "the interest is 1 gín per 5 gín") and 33% for barley loans (indicated numerically with the phrase: máš 1 gur 0.1.4-ta, "the interest is 100 sìla per 300 sìla").

Therefore, in the customary loans, the payment of interest was always stipulated; however, the exact rate was often determined by custom and was not explicitly stated. For example, in the SI.A-a archive, the rate of interest was expressed numerically in only five of the thirty-nine surviving customary loans.[24] The reason for this seeming omission was that the interest rates in this period tended to be fixed, and they were commonly known. This situation was already addressed by W. F. Leemans (1950) for the Old Babylonian period. Leemans (1950: 14) argued that an explicit numerical indication of the interest rate in Old Babylonian loan documents was not required and could be replaced by certain phrases, such as máš gi-na; and he suggested that these phrases were understood to indicate not just the presence of interest but also the actual rate of interest, which was commonly known. The customary interest rates in the Old Babylonian period were the same as those attested for the Ur III period.

As Leemans pointed out, his suggestion finds support in the extant Old Babylonian law collections. The Laws of Ešnunna and the Laws of Hammurabi both establish that the interest rate for silver was 20%, and the interest rate for barley was 33% (Laws of Ešnunna ¶ 18A; Laws of Hammurabi gap ¶ t; see Roth 1997; Van De Mieroop 1995: 357-8). The Laws of Hammurabi underscore the perceived difference between barley and silver loans. Gap ¶ u specified that the recipient of a silver loan could repay the loan in barley, if he did not have the necessary silver, but the debtor could not be charged the higher rate of interest, i.e. 33%, on what had originally been a silver loan (Roth 1997: 97-8).

In the Ur III period, the same conditions applied to the drawing up of loan documents. In all customary loans, the tablets indicated that interest was being charged but they did not always mention figures, instead relying upon the knowledge of the persons involved, and on the enforcement of customary interest rates. In Ur III loan documents, the phrase ur_5-ra, along with its variant ur_5-šè, carried the meaning of a debt or obligation with interest.[25] The use of the

[24] *MVN* 8 153, and 158; *ZA* 93/2 7, and 10; and *TIM* 3 150.

[25] The textual evidence shows that ur_5-ra and ur_5-šè must be considered variants of the same phrase. Lutzmann (1976: 40-1) suggested that there were local customs regarding the usage of one of the variants. A survey of the loans from Nippur bears out his conclusion that the phrase ur_5-šè was more common in loan documents at Nippur. Among the dozens of loans from Nippur published in *NRVN* 1, only three employ the phrase ur_5-ra, while forty use the phrase ur_5-šè.

phrase ur_5-ra/šè on its own, or preceded by kù, "silver," indicated a silver loan carrying an interest rate of 20%, unless a specific rate was otherwise indicated.[26] The phrase máš-gá-gá, meaning "the interest is established," sometimes accompanied the phrase ur_5-ra/šè. Barley loans were differentiated from silver loans by the addition of še, "barley," to the ordinary phrase, thus še ur_5-ra/šè.

In his exhaustive study of the Ur III loan documents that were available to him, Heiner Lutzmann (1976: 41) arrived at a different conclusion regarding the ur_5-ra/šè loans, and determined that these loans did not carry with them an assumption of interest. The original equation of ur_5-ra with an interest-bearing obligation came from the lexical lists in which this Sumerian term was paralleled by the Akkadian term for an interest-bearing obligation. Lutzmann, however, noticed that certain texts appeared to provide a notice of the interest-bearing nature of debt twice through the use of the phrase ur_5-ra/šè along with the phrase máš-gá-gá.[27] He felt that such repetition indicated that one of the two phrases must imply something other than interest.

What is primarily required in order to accept this suggestion is some evidence that interest was not expected on the loans that simply employed the phrase ur_5-ra/šè. (A further requirement would be demonstrating that the nature of such loans had changed over time in order to account for the positive evidence from the later lexical lists and the law codes.) One could just as easily point to the loans that incorporated the customary formula, and at the same time included a phrase indicating that no interest was being charged, máš nu-tuku, "there is no interest."[28] The same principle of unnecessary information would apply in these cases if we follow Lutzmann in assuming that ur_5-ra/šè did not indicate that interest was to be charged.[29]

There are a number of possible explanations for this phenomenon. The two clauses may in fact have had slightly different meanings, and, therefore, would imply no repetition. The customary phrase probably signified more than simply the interest rate but also the additional terms of the loan agreement, such as the duration of the loan and the form of repayment. The máš-gá-gá clause may have been a written indication that the interest rate had been established

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[26] Wool loans usually employed the same terminology as silver loans. See *MVN* 13 741, and *ZA* 93/2 9.

[27] See, for example, *MVN* 8 156.

[28] See, for example, *MVN* 13 746 + 747, and *TMHC NF* 1/2 91.

[29] The same repetition occurs in any loan that bears both the clause ur_5-ra/šè and a numerical indication of the interest, as is the case in numerous loans from Nippur, and several in the SI.A-a archive. See, for example, *NRVN* 1 127, *NATN* 247, and 316.

between the parties, in the presence of the witnesses, at the time of the transaction.[30] In a society that was largely illiterate, the addition of the phrase máš-gá-gá may have served as a reminder to a scribe reading the loan document that the terms had been agreed upon orally by the participants. Finally, this clause may even have modified the customary agreement in a manner that we cannot fully appreciate. For example, the phrase máš-gá-gá could have implied some durative force and indicated the operation of compound interest.

The problem of repetition is not easy to solve. Aaron Skaist (1994: 126) has suggested, against Leemans, that we should not understand phrases such as máš gi-na in the Old Babylonian period as indications of a fixed interest rate, but rather as signs of a variable interest rate. This observation could be brought to bear on the Ur III period as well. If we have some ur_5-ra/šè loans that provide no additional information, while other ur_5-ra/šè loans include a numerical provision for the interest rate, then why should we presume that ur_5-ra/šè indicates a fixed rate of interest? There is no decisive answer to this question; however, the texts themselves are very suggestive. I have already stated my belief that the use of customary phrases refers to more than simply the rate of interest, and also implies information as to the more general terms of the loan. It is possible that some of these terms were established by oral agreement and are therefore beyond recovery. What we must also keep in mind is the possibility of regional variation in the customs for describing loans. We can see such variation in operation even if we cannot always explain it, as, for example, in a preference for ur_5-šè over ur_5-ra at Nippur.

The centralization of the Ur III state was an extremely rapid and short-lived phenomenon. The law codes of the Ur III and succeeding periods indicate a desire on the part of the central authority to standardize some aspects of lending activity. However, the individual inhabitants of the various districts would have remained familiar with their local customs.[31] Some of the repetition that we cannot readily explain, may be accounted for by the different geographic or social backgrounds of the parties to the loan. Throughout this discussion we must remember that the surviving loan documents did not create legal obligations. The actions taken in the presence of the witnesses when the loan was issued by the creditor established the legal conditions pertaining to the transac-

[30] *MVN* 8 158 provides support for this understanding of the phrase máš-gá-gá. This was a barley loan advanced by SI.A-a, and line 2 reads: 1 gur máš-gá-gá, "the interest is established as 1 gur." The clause ur_5-ra/šè máš-gá-gá should be translated as: "customary interest is established." One of the reviewers of this article suggested that the reduplication of the verb could indicate a plural, thus "they agreed on the interest."

[31] For example, we know that many local calendars remained in use during the Ur III period, despite the imposition of the so-called *Reichskalender*.

tion.[32] Under these circumstances, it is hardly surprising that we do not find the degree of clarity and standardization in the loan documents that we might expect in our own time.

In his assessment of loan contracts from the Old Babylonian period, Skaist has reconsidered many of the aspects of the loan documents that had previously been discussed by Leemans, and his conclusions have great significance for the discussion of the Ur III loans as well. Most importantly, Skaist (1994: 40) has followed Lutzmann and questioned the assumption that the formula ur_5-ra/šè was a primary indicator that interest was being charged: "The term ur_5-ra in the loan contracts of the Ur III period is not to be defined as 'interest bearing loan,' nor can interest be said to be a characteristic of the ur_5-ra loan."

In the Ur III loans from Nippur, which constitute the largest corpus of non-institutional loans from the period, we are more likely to encounter the numerical indication of the interest rate, rather than the use of the customary phrases. Within the Nippur corpus, there are numerous texts in which both the numerical indication of the interest and the customary phrase appear,[33] and there are examples of Nippur loans which use only the customary phrase to indicate the rate of interest.[34] Therefore, we encounter examples of what appears to be repetitious information in many of the surviving loan documents; however, we cannot assume that the problem this causes modern scholars in our efforts at arriving at a translation is indicative of any difficulty on the part of the ancient Mesopotamian. The parties to the loan agreements understood the customs of their society, and the side by side use of the customary phrase and the numerical indication could just as easily have complemented each other as an indication of different information.

There is support for this assertion from the extant law collections of the Ur III period. Martha Roth's reconstruction of the Laws of X, which may have formed part of the Laws of Ur-Namma, provides a parallel for the repetition of information that characterizes many of the loan documents. According to Roth (1997: 38), the phrases še ur_5-ra-šè and kù-babbar ur_5-ra-šè appear alongside the numerical indications of the interest rates.[35]

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[32] The tablets themselves were always secondary to the public performance of the actions that they record. "There is ample evidence throughout Mesopotamian legal history that legal transactions were concluded in this way, that is, without leaving a trace in the form of a legal document. Symbolic acts performed in the presence of witnesses gave the act its binding force. A written document was not necessary. All this comes as no surprise in a society in which literacy was restricted to a small segment of the population." (Renger 1995: 293)

[33] For example: *NRVN* 1 78, 79, 81, 82, and 84.

[34] For example: *NRVN* 1 105 and 106.

[35] For the Laws of Ur-Namma, see also Wilcke 2002: 325. Wilcke's reconstruction and

The phrasing of the laws was precisely the same as that which appeared in the loans themselves. Therefore, the primary indication of a customary loan was the presence of the phrase ur_5-ra/šè. The Sumerian ur_5-ra corresponds exactly to the Akkadian *ḫubullum*, meaning interest-bearing debt. The correspondence is made clear in the lexical list ḪAR-ra = *ḫubullu*. The lexical series *ana ittišu* provides corroborating evidence for this equation, again giving *ḫubullum* as the counterpart of ur_5-ra.[36]

The manner in which the various provisions in the law collections were written is an indication that the practice of customary lending was identical in the Ur III and Old Babylonian periods. The relevant provision of the Laws of Hammurabi reads:

> **gap ¶ t** *šumma tamkārum še'am u kaspam ana ḫubullim iddin ana* 1 *kurum* 1 *pān* 4 *sūtše'am ṣibtam ileqqe šumma kaspam ana ḫubullim iddin ana* 1 *šiqil kaspim* IGI.6.GÁL *u* 6 *uṭṭet ṣibtam ileqqe*
>
> If a merchant gives grain or silver as an interest-bearing loan, he shall take 100 silas of grain per kur as interest (=33%); if he gives silver as an interest-bearing loan, he shall take 36 barleycorns per shekel of silver as interest (=20%). (Roth 1997: 97)

The equivalence of the Akkadian *še'am/kaspam ana ḫubullim* with the Sumerian še/kù ur_5-ra/šè is therefore obvious. The development of these customary phrases is less obvious. The traditional bias in favor of the great institutions that has pervaded the study of the economy of the Ur III state has led to the assumption that the origin of the še ur_5-ra loans had an institutional background. This assumption has been based upon the idea that the temple estates bore a responsibility to their dependent laborers to provide access to institutional credit in times of need. This was the conclusion drawn by Tom Jones and John Snyder (1961: 249-79) in their assessment of še ur_5-ra loans. Their study also determined that these advances were discounted (which may have been a way of formulating the interest within an institutional setting), and that they may have been a form of "separate or private enterprise" within the institutional setting (Jones and Snyder 1961: 271). Steinkeller (2002: 116) has recently reconsidered the institutional še ur_5-ra advances, and he concludes that they constituted a system of advances made by the central administration to its dependents, ordinarily without interest, in order to protect them from economic

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translation also support the interpretation of ur_5-ra as an interest-bearing loan, carrying the customary interest rates.

[36] *ana ittišu* II i 57 (MSL 1: 19). Following Skaist (1994: 34-5), we should understand the phrase ur_5-ra to be "a combination of the noun ur_5 plus the locative suffix /a/ . . ." Therefore, we should translate the phrase še/kù ur_5-ra/šè as "barley/silver as an interest bearing obligation."

hardship.[37] However, the use of this term in relation to lending practices was widespread in the Ur III period and was not confined to institutional endeavors.

Further, the parallel between the use of the terms še ur_5-ra and kù ur_5-ra, suggests that the key element in these terms is precisely the noun ur_5, which can be so closely tied to the Akkadian *ḫubullum*, and which indicated an interest-bearing debt. The exclusive use of še ur_5-ra, "barley as an interest bearing obligation," in institutional contexts clearly reflects both the availability of vast quantities of barley in the temple estates, and the fact that the needs of the temple dependents were most readily satisfied through advances in barley.[38] Based on their terminology, the ur_5-ra transactions were interest bearing. Therefore, if Steinkeller is correct in suggesting that the še ur_5-ra advances made by the large institutions, mainly in the far south of Babylonia, were interest-free, then we must assume that the origin of the term ur_5-ra lies outside of an institutional context.

Indeed, this explanation is made more convincing in light of the probable northern location for the geographic origin of the ur_5-ra/šè loans. This is made clear by the prominence of these loans in the north in the Ur III period,[39] and the fact that ur_5-ra loans were more commonly found in the north during the Old Babylonian period and, in particular, in the Diyala region (Skaist 1994: 37). The evidence from the SI.A-a archive, which contains numerous ur_5-ra loans, supports this conclusion. The origin of this archive is to be found in northern Babylonia, northeast of Babylon and just south of the Diyala.

The use of the customary phrase ur_5-ra/šè achieved a wide geographic usage during the Ur III period precisely because it expressed the terms that were becoming common practice throughout southern Mesopotamia. In the succeeding Old Babylonian period, a new phrase was introduced from Babylon, máš gi-na, which meant "of regular interest" and obviated the need for the previous formula. Skaist (1994: 126) has concluded that, "(t)he 'sudden' introduction of máš gi-na in some of the loan contracts from southern Old Babylonia tends to indicate that máš gi-na reflects a concept not in use there." Instead, I believe

[37] Temple loans for similar purposes may also have existed in the Old Babylonian period. See Harris 1960, where the Šamaš temple at Sippar is described as a beneficent creditor. Recently, Richardson (2002: 171-72) has pointed out that some temple loans in the Old Babylonian period required the payment of interest, and that the temples also engaged in lending for explicitly commercial purposes.

[38] As discussed above, in non-institutional settings, we often encounter kù ur_5-ra, "silver as an interest bearing obligation."

[39] In his study of the ur_5-ra loans, Skaist (1994: 38) provides a map of their distribution that appears to show these loans concentrated in the south, but this map is based on a limited sample of texts.

that the concept of a customary interest rate was well-known in all of Babylonia at least since the Ur III period, and the introduction of máš gi-na was not the arrival of a new concept but the adoption of a new terminology for an old convention.

The value to the ancient scribe of developing a brief terminology for expressing the customary terms of loan agreements should be obvious. Anyone who has worked with Ur III loan documents knows just how small the tablets are. The majority of the loan documents amount to little more than four or five lines of text along with the witnesses and the date. The most essential characteristic of the customary loans was that the formula allowed for a great deal to be expressed with an economy of writing.

Terminology: Interest-free Loans

Interest-free loans were usually indicated in one of two ways. Either the phrase máš nu-tuku, "there is no interest," appeared in the text, or the text included a repayment clause but no indication that interest was due.[40] Many of the loan documents that included promissory oaths regarding the repayment of the loan were interest-free loans, and most contained oaths pledging repayment at a specific time in a given month.[41] The majority of the interest-free loans indicated a date of repayment. Often, the duration of the loan did not exceed one month (some loans were as short as ten days),[42] and none of the loans were likely to exceed one year. We can assume that these loans were due on the month indicated when it next arrived.

Interest-free loans may have been common among professional groups and extended families. Steinkeller (1987) has shown that the organization of the foresters at Umma ran along familial lines and that the supervisors were laden with increased responsibility along with increased rewards. Similar arrangements

[40] *MVN* 8 165: 1 gín lal igi-6-gál/ kù-babbar/ ki SI.A-a-ta/ Dingir-ba-ni šu ba-ti/ sag iti a-bu[!]-/ um/ tu-ru-um/ mu lugal in-pàd/ Witnesses/ Date

> Ilum-bani received 1 gín, less 1/6 of a gín (7.83 g.) of silver from SI.A-a. He swore in the name of the king to return it at the beginning of the month abum. Witnesses. Date.

Of course, a loan document such as this one may have superceded an earlier interest-bearing loan agreement. In essence, this could be a repayment agreement, and as such, the interest on the original loan may be hidden within the total given in line 1.

[41] See, for example, from Nippur: *NRVN* 1 103, 124, 174, 185, and 189, *NATN* 65, and 442, *TMHC NF* 1/2 31; from Umma: *YOS* 4 5, 51, and 52; from the SI.A-a archive: *MVN* 8 166 and 171.

[42] *MVN* 8 163.

must have been common among other professional organizations, like that of the shepherds, and individuals may have been customarily obligated to advance loans to their subordinates on favorable terms. For example, SI.A-a loaned sheep to two men who may have been shepherds under his supervision.[43] Another possibility is that individuals like SI.A-a may have been temporarily covering a loss among their charges. Robert Englund (1991: 264) has argued that supervisors in the Ur III period were able to derive personal benefit from surpluses created under their care, and he has further suggested that these supervisors were also responsible for deficits that occurred under their watch. There is some evidence as well for the practice of using interest-free loans within extended family groups.[44]

Terminology: Antichretic Loans

Antichretic loans differed from customary loans in several significant respects. Similar to customary loans, antichretic loans were ordinarily subject to interest; however, the interest on antichretic loans was not paid in a traditional commodity but was most often rendered in the service, usually labor, of the borrower. Therefore, it is often difficult to calculate the interest rate for a particular loan, and when such calculations are possible, the rates vary widely.

Many of the conventions in use for documenting customary loans were also applied to antichretic loans. These loans were often both sealed and witnessed. The duration of antichretic loans is very difficult to determine with assurance. Above, I divided antichretic loans into two categories based on the commodity of the principal advanced.[45] The loans in the first category were probably similar to customary silver loans in that the terms of the loan could extend beyond one year, and depended upon the ability of the borrower to repay the principal. Those of the second category were probably harvest loans, with the interest payable at the time of the harvest, and the principal returned after the conclusion of the harvest. We do not know when these agreements were contracted, but in all likelihood they were short-term loans.

The shortage of labor in the Ur III state that has been identified by Steinkeller and others can be readily appreciated in the antichretic loans, which

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[43] *MVN* 8 171.

[44] For example, in *MVN* 8 164 Abaya received an interest-free loan from SI.A-a, his brother. Both brothers were also chief shepherds, and so their familial relationship was paralleled by their professional relationship.

[45] See the section above on the typology of loans, and the texts referred to in notes 10 and 11. On the use of antichretic loans in craft production, see Neumann 1993: 154.

place a high value on labor. This pressure affected all households, which explains in part the willingness of the central administration to provide institutional credit on favorable terms for the borrower. The non-institutional household was at a particular disadvantage as it rarely had access to significant numbers of dependent laborers. Therefore, access to labor was a more critical concern for the entrepreneur in the Ur III period than access to land. Under these circumstances, the existence of antichretic loans, the purpose of which was the procurement of agricultural labor, is hardly surprising. Steinkeller (2002) has identified numerous examples of these loans in both the institutional and non-institutional economies, and he has used these loans as the basis for some of his arguments about the economic motivation of lenders.[46]

The terminology of the various types of antichretic loans frequently paralleled that of the customary loans, but with the significant addition of providing evidence for the purpose of the loan agreement. In the antichretic loans that seek harvest labor, we commonly encounter direct references to the type and duration of the labor.[47] In these loans we can often determine that the interest rates were discounted, because the labor being provided had a value that was equal to less than the 33% return that a creditor would ordinarily have received for a harvest loan advanced in barley.[48] We also find antichretic loans that specify the area of land to be harvested as interest on a loan.[49] Therefore, these texts support the theory that labor was in high demand in the Ur III period; however, they cannot be used to support the notion that the majority of lending activity in the Ur III period was geared solely toward the acquisition of land or labor.

[46] For non-institutional antichrectic loans of this type, see note 11. For a loan of this type in an institutional setting, see *AUCT* 3 492. For a more extensive discussion of these loans and their operation, see Garfinkle 2000: Chapter II.c.iii.

[47] For example, JCS 23/4 8: 2.0.0 gur/ sag-bi gi_4-gi_4-dam/ 10 guruš u_4 1-šè/ še-kin-kin-dè/ ki SI.A-a-ta/ Gìr-ni/ šu ba-ti/ Witnesses/ Date.

> Girini received 2 gur (600 liters) (of barley) from SI.A-a, to be returned in its entirety, for 10 man days of labor for harvesting barley. Witnesses. Date.

In this transaction, SI.A-a was to recover the principal of the loan (600 liters of barley) and be paid interest in harvest labor.

[48] In the text cited above in note 47, the interest rate works out to 10%. The value of the 10 days of labor was equivalent to roughly 60 liters of barley, as the average daily wage for harvesting labor was 6 liters of barley. This issue is discussed at length in Garfinkle 2000: Chapter II.c.iii.

[49] See, for example, *MVN* 9 201. On the related topics of the pledge of fields to secure loans, and the rent of fields, see Neumann 1999b: 137-48.

Lending Practices in the Ur III Period

As noted previously, interest rates in the Ur III period, and in the succeeding Old Babylonian period, were determined by custom. Many of the loan documents did not provide an explicit statement of the interest rate. Instead, certain phrases were employed to indicate the terms of the loan. We should not be surprised that much of the substance of the loan agreement was dependent upon the oral transmission of knowledge and custom in the Ur III period. The loan documents themselves only served as reminders to the participants of what had been transacted. The significance of the loan documents was often that they had been executed in the presence of others. The witness lists and the seal impressions were a crucial part of the recorded loan document because they were the locus for the most important legal aspects of the texts.[50] The actions taken by the participants before the witnesses at the time that the loan was issued governed the actual obligations of the parties to the loan.[51] It was always necessary for the loan to be either witnessed or sealed. Many of the tablets recording loans also have preserved envelopes. Most loan documents in this period had cases, but it is impossible to prove that this was necessary for the enforcement of the terms of the loan. Indeed, the presence of some sealed loan documents that do not have preserved cases may argue for the possibility that envelopes were not always required when loans were recorded.

The fact that the loan documents on their own could not create legal obligations helps to explain their survival in such large numbers. It is common practice in the study of cuneiform texts to assume that the survival of loan documents was the result either of default on the part of the debtor, or the fact that the loan agreement was still in force and survived among the later texts of the archive. The first assumption rests on the understanding that the loan documents were destroyed at the time of repayment. The information provided, for example, by the SI.A-a archive, in which numerous loans survive from throughout

[50] As Greengus (1969: 513) has noted, "in ancient Mesopotamia written records were basically evidentiary in character rather than dispositive i.e. the documents (as do witnesses) serve only as an additional means of proving that a transaction had taken place but are not, in themselves, instruments of legal change." The loan documents themselves existed to protect the creditor by providing a record of the events and the witnesses to those events. The presence of a loan document was not enough to establish a claim; such a claim could only be demonstrated in conjunction with the witnesses, or, in the case of loans, perhaps with the additional proof of the seal impression of the debtor.

[51] It is clear from studying the prosopography of the archives of creditors that both of the active participants in the loan documents furnished witnesses to the transaction. This practice provided obvious protection to both sides in the event that a court case became necessary and the testimony of the witnesses was required.

his long career, calls into question these assumptions. Either we must imagine that SI.A-a was plagued by bad debtors or we must understand the survival of these loans in a different way. Steinkeller (2002: 113) has already recognized the problem posed by the presence of so many of these texts:

> Let me suggest, finally, that the very survival of so many loan documents from ancient Babylonia is yet another potent argument for assuming that most of such transactions were motivated by something other than the gain from interest. As is well known, the principle governing the preparation and handling of loan documents—and here I am talking specifically of the third and second millennia—had it that only one copy of the documents was prepared, which, after being sealed by the borrower, was handed over to the creditor, in whose possession it would remain until the loan was repaid. At that moment, the loan document would be destroyed, of which procedure numerous testimonies survive.

Steinkeller's argument that the impetus for advancing loans was other than the expectation of the receipt of interest has already been addressed, but he has highlighted an intriguing problem. The most immediate answer to the problem of the survival of the loans is that we are making too many assumptions that ancient Babylonian loans were given for a fixed duration. Interest rates in the Ur III and Old Babylonian periods were not annual, but were rather calculated on a per loan basis. What this means is that the loans in these eras had no fixed term (for more on the duration of loans, see below). I believe that the custom, unless otherwise indicated in the loan document itself, was not to assign a limit to the duration of the loan. The absence of explicit repayment clauses on most of the loans supports the presumption that the loans were repaid, according to custom, based upon the ability of the debtor. Default occurred only when the borrower failed to pay the interest due on the loan, or when the borrower failed to honor conditions that may have been explicitly applied to the individual loan.

My second objection to the assumption that the survival of a loan document is an indication of default rests on the legal nature of the documents. We know that the issuing of a loan was attended by witnesses, the testimony of whom constituted legal protection for the creditor. Certainly, the repayment of the loan would have been carried out in the same manner for the protection of the debtor. If the receipt of a loan was a public act, then so was the satisfaction of the creditor. If the repayment was made before the same set of witnesses, then the creditor could hardly use the original loan agreement to establish the basis for a legal claim against a debtor who had already satisfied him. There are obvious reasons why the debtor would have sought the destruction of the loan document at the time that the loan was repaid, but it is not clear that this was a legal requirement. The destruction of the loan agreement, alluded to above by Steinkeller, may in fact have been related directly to the legal obligation created by the presence of the borrower's seal on the tablet or envelope.[52] This might explain the greater survival of loan tablets without their cases. Perhaps all that was necessary was the destruction of the sealed envelope and not of the tablet itself.

A creditor's possession of a defunct loan tablet, without its case, which had been repaid in the presence of witnesses, did not grant him the ability to establish a legal claim against an innocent former debtor. Moreover, the practice of occasionally having copies of the loans drawn up for the archive of the debtor is relevant to the discussion of the survival of the loan documents.[53] These copies, which lacked the seal impression of the debtor and the list of witnesses, could not be used to create a legal obligation and therefore did not have to be destroyed.[54]

The absence of an indication of the precise duration of the loan in most of the loan documents can only mean one thing: similar to the customary understanding of the usual rate of interest, the debtor and the creditor must have understood by custom what terms applied to the duration of the loan.[55] The absence of explicit repayment clauses on most of the loans supports the presumption that the loans were repaid based upon the ability of the debtor. Since we know that the scribes of the Ur III state were quite capable of drafting clauses specifying the conditions of repayments, and including specific dates, they are telling us something significant when they omit such clauses.

Under these circumstances we can only put forward two suggestions regarding the interest rates. Either the interest was understood to be annual, or the interest was understood to apply to the exact duration of the loan, regardless of its length. It is usually presumed that the latter suggestion would disadvantage the debtor and allow the creditor to collect interest at usurious rates. While I admit that this was often the case, this presumption requires that most loans were of extremely short duration. I think we can suggest precisely the opposite.

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[52] The fact that the use of a seal could create a legal obligation on the part of its owner is made clear by texts referring to lost seals and their recovery. See Steinkeller 1977: 48-9 and Hallo 1977.

[53] This practice is attested in the Tāram-ili archive, see JCS 38 37.

[54] The preparation of copies of legal documents is attested in the cuneiform record, as is a differentiation between copies and sealed texts. See *BIN* 7 31, an Old Babylonian letter in which the author of the letter threatens to return the copy of a partnership agreement and destroy the sealed documents.

[55] "The period of the loan was thus often clear both to the borrower and the lender at the time the contract was drawn up. The exact amount to be repaid was known to both parties, or could have been easily calculated." (Van De Mieroop 1995: 359)

According to my understanding of the customary loans, those texts that indicate a precise date for repayment were deviations from the normal practice. We can assume then that short-term loans at high interest were not the normal practice.

The custom of applying interest rates to the actual duration of the loan, from its issuance to its repayment, was favorable to the creditor without being onerous to the debtor. The point is that interest was payable for each year of the loan, but was not calculated annually. Any repayment on a loan of less than one year in duration was repaid with the full amount of interest.[56] There is evidence that the payment of all of the outstanding interest might accompany the repayment of the principal.[57] Thus, a creditor might not have seen any return on a loan for several years. The obvious implication is that individuals, unless otherwise directed by the terms of the loan, repaid their debts when they were capable, plus the customary interest owed. At the same time, the creditors profited both from early repayment, and from the opportunities, which arose prior to the harvest, to insist on short-term loans.[58]

The evidence from the Ur III period supports the conclusions reached by Marc Van De Mieroop (1995) and Skaist (1994) that Old Babylonian interest rates were not computed annually. Skaist has pointed out that a complete date (day, month, and year) is necessary in order for the amount due to be calculated on a loan with an annual interest rate. The overwhelming majority of the loans from the Ur III period neglect to record the day of the transaction, and many record only the year. This would make perfect sense if the interest rate was to be computed on a per loan basis.[59]

[56] Therefore, if PN1 borrowed 10 gín of silver from PN 2 at 20% interest, the following terms would have applied. If he repaid after 9 months, he owed 12 gín; if he repaid after 12 months, he owed 12 gín; if he repaid after 18 months, he owed 14 gín; if he repaid after 24 months, he owed 14 gín; and so on.

[57] There are texts (for example, *NRVN* 1 61 and *NATN* 635) which indicate that the interest on a silver loan over a period exceeding one year did not exceed the total of the number of outstanding years of interest on the principal at 20%. Therefore, the payment of interest may have occurred only after several years, or at the time of the final repayment of the loan, and it did not include any compounded interest.

[58] And this was clearly the case also in the Old Babylonian period: "Many of the loans we find attested in the Old Babylonian sources were obtained in times of dire need. In the last month before the harvest a farmer who could not feed his family any longer needed to borrow grain." (Van De Mieroop 1995: 362)

[59] The issue of compound interest also arises in any discussion of the duration of loans. It is clear that the inhabitants of the ancient Near East were familiar with the concept of compound interest. Leemans (1950: 22-5; but see also Van De Mieroop 1995: 361) highlighted several mathematical texts that provided for the calculation of compound interest. There is, however, no evidence that compound interest was the norm for loans issued in the Ur III period, and the texts cited in note 57 suggest that it was not.

The following is an example of a loan of this type.

> *Eames Coll.* P 1: 1 ma-na 12 gín kù-babbar si-ì-tum nì-ka$_5$-ak/ máš 5 gín 1 gín-ta/ ki Ur-ša$_5$-ga-ta/ Ú-tul-Ma-ma/ šu ba-ti/ iti šu-numun-a sag-šè/ lá-e-dè/ tukum-bi nu-lá 2-àm tab-bé-dè/ mu lugal ì-pà/ Witnesses/ Date (IS 1, I)
>
> Utul-Mama received 1 mana and 12 gín (576 g.) of silver, the balance carried forward of a balanced account, from Uršaga, with interest of 1 gín for each 5 gín (20%). He will weigh it out (repay it) at the beginning of month 4. If he does not weigh it out, then he will pay double the amount. He swore in the name of the king before the witnesses. Date (IS 1, I).

This text, a sizeable loan between two merchants,[60] provided a numerical indication of the customary interest rate, and it demonstrated the concern of the creditor for the recovery of his interest. Here we have a short-term loan, from the first to the fourth month, which included both an indication of the interest rate and the penalty for default.

Unfortunately, the laconic nature of most of the texts prevents modern scholars from being wholly conversant with the customs governing lending practices in the Ur III period. However, in the absence of such information, we cannot presume that because the customary rates of interest appear high to a modern audience, and because there is evidence of debt slavery in the ancient Near East, that the practice of money-lending invariably favored the creditor.

If the loans of the Ur III period were of a longer duration than we are accustomed to assuming, then we would expect a greater number of loan agreements to survive from throughout the career of a lender. This is exactly the situation that prevails in the SI.A-a archive. Certainly, the survival of some of the loans in this archive may have been the result of default, but there is no evidence to prove that this was the case in the majority of the extant texts. With a larger sampling of loans we might be able to distinguish between the consumptive loans, which were usually issued in barley for a fixed duration, and the longer-term loans, which were more frequently issued in silver. Under such circumstances, we might be able to distinguish in an archive such as SI.A-a's between the "good" debts and the "bad" debts.

In summary, the loans of the Ur III period were usually subject to a customary interest rate. Compound interest did not generally apply to loans in the

[60] It is likely that the participants in this text are two well-known merchants. Utul-Mama was a merchant active in SI.A-a's community, and he frequently appeared in the latter's texts. Uršaga was a merchant active in Lagaš, where he appears to have been an overseer of a merchant organization that included much of his extended family. This text, based on its probable provenance, also points to the centrality of Nippur in the affairs of the merchants, and this might be related to the bala.

Ur III period. The interest rates were not annual, because the entirety of the interest was due at the repayment of the loan, even if the loan was repaid prior to the passage of one year. There was no customary duration for loans in this period. Unless otherwise stated, the interest and the principal were to be repaid when such repayment became possible for the debtor. As a general rule we can state that silver loans tended to be of greater duration than barley loans.

CREDITORS

The range of possible creditors was extraordinary, including both the large institutional households and the smaller non-institutional households. A debtor might owe an obligation to the temple of one of the chief gods of the pantheon, to a member of the royal family, to an urban entrepreneur, or to a relative or co-worker. This section focuses on the individual entrepreneurs who made some of their living through lending.[61]

My examination of the largest non-institutional archives so far available from the Ur III period has led to some side-by-side comparisons of the archival material. Among the most striking aspects of these comparisons is the quantitative difference in the amount of money-lending activity in the different archives. In the largest such archive, that of SI.A-a, a chief shepherd, loans account for 68% of the seventy-six surviving texts. In the archive of Tūram-ili, a merchant, loans account for only 17.5% of the fifty-seven surviving texts.[62] Of course, the surviving texts may not be an accurate reflection of the original volume or importance of any one particular activity within the economies of the households under consideration. At the same time, these are striking numbers, and they challenge some of our assumptions about creditors in the Ur III economy because we have been apt to associate money-lending in Mesopotamia with the activities of merchants.[63]

The surviving texts of SI.A-a's archive have very little to do with the daily business of shepherding. Instead, he appears to have been a creditor on a large scale, even extending loans to members of the provincial administration in his community.[64] In contrast, Tūram-ili's professional designation corresponded

[61] For discussions of entrepreneurs and their activities, see also Neumann 1992 and van Driel 2002: 24-30.

[62] For an overview of the SI.A-a archive, see Garfinkle 2003; and for an overview of the Tūram-ili archive, see Garfinkle 2002.

[63] Certainly, loan documents are often found in the archives of merchants, but lending was in no way the sole province of merchants. For example, in Steinkeller's (2002: 118-24) recent study of money-lending, none of the archives examined belonged to a merchant.

[64] See note 17.

much more closely with his business activities. Tūram-ili, who was identified in one of his texts as an ugula dam-gàr, "an overseer of merchants,"[65] was most often involved in two activities. First, he was active in the management of balanced account operations, similar to the balanced accounts with which we are familiar from Umma and Lagaš.[66] Second, he was engaged in the transfer and purchase of various commodities on behalf of others. The role of the merchant in the Ur III period was as a facilitator of exchange.[67] The role of the shepherd was presumably as a minder of sheep. Whereas, from a modern perspective, Tūram-ili's transactions ably fit his job description, those of SI.A-a do not. The prominent role of merchants has been highlighted in previous discussions of the early Mesopotamian economy, but we must recognize that within this economy shepherds and merchants could occupy the same space acting as individual entrepreneurs. It is impossible for us to establish clearly all of the economic activity of a household on the basis of the professional designation of one or more of its members.

There are, at the same time, some similarities in the conclusions that we can draw about the nature of the Ur III economy from our examination of these two professionals. The Ur III state relied extensively on local, traditional hierarchies in order to manage its economy. This is not a new conclusion, and Steinkeller (1991; see also Garfinkle 2002 and 2003) has already made this point in his examination of the administration of the Ur III state; however, the evidence from the non-institutional archives underscores the dependence of the state on the local elites, who organized themselves largely along familial lines. This was certainly the case as well for credit. During the Ur III era, the overwhelming centralization of the state economy and its administration fostered opportunities for entrepreneurs, in part, by creating the acute need for credit that was serviced by non-institutional households, like those of SI.A-a and his family.

Advancing loans at interest was an option available to any household that had the means to do so. There were no apparent social or economic disincentives to money-lending. Indeed, the nature of the Ur III state made this activity attractive and, in some cases, necessary. The individual creditor in the Ur III period was usually the head of an urban household with access to surplus wealth, usually in silver or barley, which could be loaned out in both short and long term agreements. These households were then able to invest the proceeds

[65] *JCS* 38 37.

[66] The balanced accounts were studied extensively by Snell 1982.

[67] For recent treatments of merchants and their activities, see Englund 1990: 13-55, Neumann 1999a, and van Driel 2002: Part I.

of their lending activities in the acquisition of slaves, draft animals, and access to additional land; and, of course, they could also invest in further lending.

CONCLUSIONS

Credit played a vital role in the economy throughout ancient Mesopotamian history. The numerous records that survive from the Ur III period not only document this role, but they also provide broader evidence about socio-economic organization in early Mesopotamia. The availability of credit was critical in economic management at every level of society, from peasants and craftsman to the largest landowning institutions of the state.

Money-lending in southern Mesopotamia at the end of the third millennium BC was a diverse enterprise that cannot be easily categorized. The precise incentives behind both borrowing and lending are largely hidden from us, and we should not expect the surviving texts to record them. Yet we can establish that there was a wide range of motivations. For example, some of the interest-free loans involving non-institutional households were actually commissions for the production of finished goods. The ur_5-ra loans of the temple households may well have been an attempt on the part of the institutions to help maintain their own workforce, and to prevent that workforce from becoming indebted to non-institutional creditors. The antichretic loans provide evidence of strategies for dealing with the scarcity of agricultural labor in the Ur III state (especially outside of the great institutions). In the end, we must recognize that much of the surviving evidence supports the conclusion that many loans were issued in the hope of achieving financial gain through the recovery of the principal plus interest.

The determination that creditors in the Ur III period issued loans for productive purposes rests on the following five points. First, the existence of promissory notes and penalty clauses attests to the desire of the creditor to recover the principal and interest, rather than the labor or land of the debtor. Second, even in an era of acute labor shortages, the value of the loans frequently exceeded the potential value of the debtor's labor and land by many times. In addition, creditors had access to antichretic loans for the extraction of labor from their debtors. Third, the court documents make it clear that creditors sought redress within their communities over unpaid debts, and that the solutions involved repayment of the principal plus interest. Fourth, many of the surviving loans involved important members of the Ur III hierarchy. The prominence of many of the debtors argues against the assumption that these men were essentially forced into default for their land or labor. Finally, loans at interest within families appear to defy an explanation based solely on a desire by the creditor to force the debtor into any form of debt slavery.

The variety of credit transactions available to the inhabitants of the Ur III state is indicative of the sophistication of its economic enterprises. The agrarian nature of the economy of southern Mesopotamia was the catalyst for the development of many of the lending practices documented in the textual corpora. The consumptive and antichretic loans have an obvious background in the agricultural regime, and they serve as reminders that debt slavery and dependent status were not uncommon. Some of the interest-free loans probably arose for commercial reasons, both because the early Mesopotamian economy was not fully monetized, and because it was in the nature of the cuneiform tradition to generate texts (or receipts) to document ongoing transactions. The development of productive loans, and especially those advanced in silver, went along with the growth of a class of commercial entrepreneurs who sought economic advantages for their households. These households were most often urban households involved in a competition for prestige and advancement within the complex social and professional hierarchies of early Mesopotamia.

Finally, the availability of credit fit in nicely with the patrimonial nature of the Ur III state and its administration. Within the large institutional households, credit was a means of further binding the dependent households to the great estates and their administrators. The survival of local and regional hierarchies within the patrimonial state was paralleled by the survival of regional credit practices, and by the ability of the creditors to operate across these regional differences.

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AUCT 3 = Sigrist 1988; *BE* 3/1 = Myhrman 1910; *BIN* 7 = Alexander 1943; *Eames Coll.* = Oppenheim 1948; *JCS* 23/4 = Owen and Young 1971; *JCS* 38 = Van De Mieroop 1986; *JCS* 54 = Garfinkle 2002; *MSL* 1 = Landsberger 1937; *MVN* 8 = Pettinato et al 1979; *MVN* 9 = Snell 1980; *MVN* 13 = Sigrist et al. 1984; *NATN* = Owen 1982; *NRVN* 1: Çig and Kizilyay 1965; *TIM* 3 = Van Dijk 1966; *TMHC NF* 1/2 = Pohl 1937; *YOS* 4 = Keiser 1919; *ZA* 93/2 = Garfinkle 2003.

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