

《論 文》

Morphological, Anatomical and Statistical Analyses on The Four Ancient Mesopotamian Law Codes Including The Hammurabi Law Code:

—— Part 0 Introductory Remarks ——

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01 Present status of the study on the ancient Mesopotamia

1.1 List of the publications on the ancient Mesopotamia

The ancient Mesopotamia, including the Hammurabi law code, had been the big target of study by numerous researchers, resulting in a large number of the books and the book chapters, as exemplified in ref.1-47. Very preliminary examination of the above-listed books gives us an impression that the majority of them include numerous non-quantitative comments, which are on the same (identical) line of author's hypothesis, even never proved with confident evidences. This section shows some results by preliminary analysis on the published books on the ancient Mesopotamia in order to clarify the present-status of the research including the four laws (Ur-Nammu (UN), Lipit-Ishtar (LI), Eshnunna (E) and Hammurabi (H)).

1.2 Some physical parameters of the books or the book chapters on the ancient Mesopotamia

Table 0-1a and 0-1b collect some physical parameters, such as size (total pages), and quality (pattern of citation) of the books on the ancient Mesopotamia.

Here, grade of quotation pattern of reference is, for the sake of convenience, classified according to the criterion as follows ;

A grade: Quotation numbers are marked on the main sentence and list of them is given in the bottom line of the page, or is gathered up at bookend or end of book chapter (A1). Although quotation is not marked on the main sentence, the list of reference only is

gathered at bookend (A2).

B grade : Location of reference (quotation number) is not indicated in the main text. Work cited is grouped (B1), or chaptered (B2), or section (B3).

C grade : Note or reference, given for each page of the main text, is collected at bookend(C1).

Note or reference, given in the text, is collected at bookend (C2).

D grade : Books for further reading.

E grade : No reference.

The results are shown at the fifth column of Table 0-1a and Table 0-1b.

Table 0-1a Some physical character of the books on ancient Mesopotamia

Ref. No.	Authors	Year	Pages (total pages)	Citation of reference	Grade and remark
1	G.Childe	1942	288 (65)	E	
2	G.R.Driver J.C.Miles	1952	517	A1	primary literature
3	G.R.Driver J.C.Miles	1955	427	A1	
4	S.N.Kramer	1963	355	C2	
5	S.Nakao	1966	192	E	
6	M.Kishimoto	1968	447 + VII	D	
7	I.Sugi	1969	p3-18 (16)	E	
8	K.Kawamura	1969	p19-45 (26)	B3	2nd literature
9	S.Yamamoto K.Maekawa	1969	p83-124(42)	B3	2nd literature
10	K.Kuroda	1969	p125-160 (36)	B3	2nd literature
11	M.Kishimoto	1969	p161-196 (36)	B3	
12	H.Hodge	1970	260	C1	best book on technology
13	K.Terada	1973	p101-453(353)	B1	
14	T.Tomimura	1973	188	C2	best popular book
15	H.Ohba	1976	252	E	best book on salinisation
16	H.Klengel	1978	258+6	C1	excellent 2nd literature

Table 0-1b

Ref. No.	Authors	Year	Pages (total pages)	Citation of reference	Grade and remark
17	K.Kuroda	1984	p76-87 (12)	B3	
18	T.Oda	1984	p25-52 (28)	B2	
19	T.Oda	1984	p158-183 (26)	B2	
20	K.Kuroda	1985	p26-34 (9)	A2	
21	S.N.Kramer	1988	253	C2	
22	A.Pichot	1991	263	E	good book on mathematics
23	H.Crowford	1991	182	B1	
24	J.Bottéro	1992	311	C2	
25	G.Roux	1992	547	A2	
26	J.Bottéro	1994	170	B2	
27	S.Hayashi	1996	p95-100 (6)	E	
28	T.Maeda	1996	82	D	
29	R.Cameron	1997	454 (9)	B2	
30	M.T.Roth	1997	283	A2	
31	S.Dalley	1998	227	A1	
32	K.Maekawa	1998	574 (145)	D	
33	K.Matsumoto	2000	254	D	
34	C.Renfrew P.Bahn	2000	640	C2	
35	R.Matthews	2000	149	A1	
36	K.Maekawa	2000	p145-253(109)	B2	
37	K.Muroi	2000	187	E	
38	G.Leick	2001	p71-142 (72)	C2	
39	O.Iijima	2002	286	A1	very primary literature
40	van de Mieroop	2004	341	D	
41	T.Kobayashi	2005	300	C2 or D	
42	Van de Mieroop	2005	171	B1-B2	
43	P. Kriwaczek	2010	310	B2	
44	C.H.W.Johns	2013	80	E	
45	A.H.Podany	2014	148	B2	
46	C.F.Home	—	p114-145 (32)		

A1 grade is a universal format of the science paper submitted to the scientific journal with high prestige. The creativity and originality of the paper can be objectively judged by the referee(s) and the citation number for the paper is counted by the evaluation organization.

In E grade book the author's originality cannot be judged, if any, and D grade book can be considered as popular book.

Iijima published two books on the cuneiform script and Akkadian languages.^{48,49}

1.3 Space allocated in the books to the Hammurabi law code

Table 0-2 shows the space of the book allocated to the Hammurabi-law code. The space is expressed as the page range consumed for description of the law. In both references 23 and 26 only the name (of the Hammurabi law) are given. Ref. 38 (Iijima), 3 (Driver and Miles) and 30 (Roth) spent 188, 101 and 72 pages for the Hammurabi laws, respectively. The space for the above law in these three books are exceptionally large, as compared with the remaining others.

In addition to ref.38, ref. 3, and ref. 4, the following two books collect all the articles of the Hammurabi law code.

Charles F. Horne , 'The Writings of Hammurabi', The First Complete Law Code, Kessinger Legacy Reprint⁷².

C.H.W Tohns, ' The Code of Hammurabi' , King of Babylon B.C. 2285-2242, Alex Struik⁷³.

In the above books, data on the original source of the H Law, the published year, and writer's career are not supplied and the evaluation of the books as reference was impossible, and omitted from the reference list.

Table 0-2 Space allocated to the Hammurabi and three preceding laws

Ref.No.	Author(s)	Law	Page (total)	Total pages
3	G.R.Driver and J.C.Miles (1955)	H	7-107 (101)	100
4	S.N.Kramer (1963)	LI H	336-340 (5) 87 (1)	5 1 } 6
6	M. Kishimoto (1968)	H	84,93~101,150-151 (12)	12
10	K.Kuroda (1969)	H	135-138,142-143,145-148, 150-152,153-158 (19)	19
14	T.Tomimura (1973)	H	112-116 (5)	5
23	H.Crowford (1992)	H	276 (only name) (1)	1
24	Jean Bottéro (1992)	H	156-184 (28)	28
25	G.Roux (1992)	H	195, 201-207 (8)	8
26	Jean Bottéro, and M.Steve (1993)	H	118,130(both only name) (2)	2
32	K.Maekawa (1998)	H	209,210,212 (3)	3
30	M.T.Roth(1997)	UN LI E H	12-22 (11) 23-33 (11) 57-70 (14) 71-142 (72)	11 11 14 72
37	G.Leich (2001)	H	186 (1)	1
38	O.Iijima (2002)	LI* E* H*	210-224 (15) 225-264 (40) 21-208 (188)	15 40 188 } 243
40	M.Van de Mieroop (2004)	H	113,114,115 (3)	3
41	T.Kobayashi (2005)	UN* H	158-168 (11) 162-164 (3)	11 3
42	M.Van de Mieroop (2005)	H	97-111 (15)	15
43	P.Kriwazek (2010)	UN H	148 (1) 3,179-181 (4)	1 4
45	A.H.Podany (2014)	H UN	77-79 (3) 13-22 (10)	3 10

* employed for further analysis

1.4 Number of the articles, fully translated into Japanese or English from the original cuneiform script on from Akkadian

Table 0-3a and 0-3b collects the number of articles(n_t), fully translated into Japanese or English from the cuneiform or Akkadian.

Table 0-3a Number of the articles, fully translated into Japanese or English from original cuneiform scripts or Akkadian

Ref.No.	Author	Total No. (n_t)	Article Number
3	Driver and Miles(1963)	249(H)	H1-H65, H100-H282
4	S.N.Kramer (1963)	35(20) (LI)	LI 1 , LI2 , LI 3 , LI4 , LI 5 , LI6 , LI 7 , LI8-18 , LI19 , LI21-25 , LI26 * , LI27-29 , LI30 * , LI31 * , LI32 * , LI33 * , LI34-38
6	M.Kishimoto (1969)	5 (H)	H177, H196-199
10	K.Kuroda (1969)	0(H)	no article
14	T.Tomimura (1973)	6 (H)	H45, H196-200
17	K.Kuroda (1984)	0(H)	no article
21	S.N Kramer (1988)	0 (H)	no article
23	H.Crawford (1991)	0 (H)	no article
24	J.Bottéro (1992)	8 (H)	H117, H123, H143, H195, H207, H209, H229, H282
25	G.Roux (1992)	20(H)	H129,H134,H138,H141,H148,H150,H1 62H168,H171,H175,H176,H215-217, H196,H198,H199 ,H218, H229, H231
26	J.Bottéro and M.J.Steve (1993)	0(H)	no article
27	S.Hayashi (1995)	0 (H)	no article
28	T.Maeda (1996)	0(H)	no article
29	R.Cameron(1997)	0(H)	no article
30	M.T Roth (1997)	60(E) 269(H)	E1-E60 H1-65, H100-H282, + 20 = (269)
31	S.Dalley (1998)	5(H)	H2, H196, H198, H200, H202
32	K.Maekawa(1998)	0(H)	no article
33	K.Matsumoto (2000)	0(H)	no article
34	Y.Onuki et.al.(2000)	0(H)	no article

Table 0-3b

Ref.No.	Author	Total No. (n_t)	Article Number
38	G.Leick (2001)	0(H)	no article
39	O.Iijima (2002)	16(LI) 59(E) 248(H)	LI 8-LI 18, LI 24-LI 28, E1-E9, E9A, E10-E34, E36-E59, H1-H65, H100-H282
41	T.Kobayashi(2005)	16(UN), 4(H)	UN1,UN2,UN4-11,UN14,UN18,UN19,U N20,UN21,UN22, H196,H197,H199,H200
42	Van de Mieroop(2005)	9(H)	H53,H54, H196-199 , H202, H229,H232
43	P.Kriwaczek (2010)	5 (H)	H196,H197, H200 , H229, H230
45	A.H.Podany (2014)	0(H)	no article

The number of articles (n_t), whose full sentences are translated into English or Japanese are unexpectedly not large. Top three are ref.30 (Roth) ($n_t = 269$), Ref. 3 (Driver and Miles) ($n_t = 249$) and ref. 39 (Iijima) ($n_t = 248$). In these references almost all legible articles are completely translated. Ref.No.10 (Kuroda), 17 (Kuroda), 21(Kramer), 23 (Crawford), 26 (Bottéro and Steve), 27 (Hayashi), 28 (Maeda), 29 (Cameron), 32 (Maekawa), 33 (Masumoto), 34 (Ohnuki et.al), 38 (Leick), and 45 (Podany) have no article, whose full sentences are translated into Japanese or English. For further analysis the translated full sentence of the article is necessary in advance.

Law article for awilum or lu_2 starts with the sentence ;

[Šumma awilum ...] : (H and E laws)

[takumbi lu_2 ...] : (UN and LI laws)

indicates explicitly that the article is for awilum or lu_2 .

Awilum = lu_2 can be verified from analysis of laws (see. Part I).

Retaliation laws (shown as bold in the Table0-3) are very preferentially chosen for full translation.

It should be noticed that in the period of 'the New Testament' nobody knew the existence of the H law, but they were familiar with 'eye to eye' law through 'the Old Testament'. We find many articles of retaliation law in 'the Old Testament'. This point will be discussed thoroughly later (Part VI).

Can we believe that authors except ref.3, ref.30 and ref.39, read all full sentences of all articles in the H law code? If an intensive choice of small number of articles was carried out, the conclusion deduced from such population will have less reliability.

Kishimoto⁷⁴ stated 'nothing of actual activity of 'Azu' (medical doctor) is known'. If he read thoroughly the four law codes (for example, LI15, LI16, LI28, L148 ; H215-223, and H278) he could have understood 'role of 'Azu' completely.(see, **Part VI .5.1.4** and Part V , Table VI -**6.5.4**).

1.5 Social class in the ancient Mesopotamia

Table 0-4 shows the social class consisting the ancient Mesopotamia society, proposed in the literature.⁵⁰⁻⁵⁸

The society was composed of four classes ; king, awilum, muskenum and slave. But, there is no article on muskenum in the UN and LI codes. There are five articles (E1, E12, E24, E34, E50) in the E code and thirteen articles (H8, H15, H16, H140, H198, H201, H204, H208, H211, H212, H216, H219, H222) in the H code. (see, **Part II . 3.4.1**). Here, the status of awilum and muskenum was not confirmed for long years. Even at present the final judgment on awilum and muskenum is not yet established. For example, ref. 6 (Kishimoto)(1969), ref.10 (Kuroda)(1969) and ref.24 (Bottéro)(1992) judged that awilum class is aristocrat. On the otherhand, ref.25(Roux) (1992), ref.33 (Matsumoto)(2000), ref.36 (Maekawa)(2000), ref.43 (Van de Mieroop)(2005) and ref.43 (Kriwaczek) (2010) concluded that awilum may

Table 0-4 Social class

Ref.No.	Author(s)	Awilum	Muskenum	Waradu
6	M.Kishimoto (1968)	•aristocrat (ref.50)	•ordinary citizen (ref.50)	slave
10	Kuroda (1969)	•human being •aristocrat •freeman (ref.51)	•half free man between human being and slave (ref.52)	slave
24	J.Bottéro (1992)	•aristocrat (ref.53)	•commoner (ref.53)	slave
25	G.Roux (1992)	•freeman (ref.54)	•some kind of military or civilian state dependent (ref.54)	---
33	K.Matsumoto(2000)	•elite citizen (ref.55)	•ordinary citizen (ref.55)	slave
36	K.Maekawa(2000)	•man (ref.56)	•some servitude to king dependent (ref.56)	
42	M.Van de Mieroop (2005)	•powerful man •one who has high status man (ref.57)	•some dependence on another person or an institution*1,*2 (ref.57)	---
43	P.Kriwaczek (2010)	•freeman or •gentleman (ref.58)	•a member of the lower orders (ref.58)	slave

*1: who submitted to certain obligations and restrictions in return for some privileges.

*2: but how different from a waradu is unclear.

occurred around 1992.

In the case when awilum is categorized as aristocrat, muskenum inevitably to be identified as ordinary people. An explanation by Kuroda¹⁰ on awilum and maskenum seems consistent only in the case awilum = human being. Comprehensive scientific analysis on the full sentences of all articles (as fundamental data base) of the Hammurabi law code will lead us

to the ultimate dissolution of a long-studying important problem.

Without certain reliable knowledge on the social class we cannot build up the principal nature of the ancient Mesopotamian society (for example, Asiatic tyranny society in which minority group (king ,priest, aristocrat, governor) exploiting of slave or slave –state people (farmer and craftsman) or the classical society consisting of king and majority (ordinary people + elite upper class people) with the same legal position and special subordinate to the state (public employee, soldier) and small number of slave (type of ancestor of the modern society). The in-depth analysis to clarify which model can be reasonably accepted, will be demonstrated in the following papers (Part I ~ VI).

1.6 Key words or explanatory notes in the published books or literature

Table 0-5 illustrates the content of some fifteen selected literatures.

The name of laws, which are surveyed together with the H law, is indicated in the second column of the Table :

It becomes clear that nine literatures cite the UN with the H laws ; five literatures cited the LI with the H laws, six literatures surveyed the E with H laws. All the four codes (UN, LI, E and H) were concurrently studied in the three literatures (re.6, 14 and 25). Note that the size and the transfer of laws had not yet been analyzed in detail and just titles were given in the literature. Then, systematic analysis on the size of each code and mutual similarity is required as the first step of the further analysis (see, Part I).

In addition, three categories (social class, penal law and written contracts) also attracted an attention of the authors of the literature, regardless the publishing year. The authors showed , in the literature, the corresponding

Table 0-5 Contents of literatures

Ref. No.	Part I*		Part II*		Part III*		Part IV*		Part V*		Part VI*	
	Other laws	Title Transfer	Social class	Profession	Legal Litigation	Penal law	Written contract	Commercial law	Prehistoric site	Agricultural law		
4	UN, LI											
6	UN, LI, E	○	○			○						
10	LI, E	○	○		○							
14	UN, LI, E					○						
16	-						⊙					
21	UN						○					
24	-		○									
25	UN, LI, E		○			○						
28	UN, LI							○				
35	-								⊙			
36	LI, E	○	○					○				
41	UN											
42	E	○	○									
43	UN		○			○						
45	UN						⊙					

○, the word or brief explanatory note is given as glossary in the text ; ⊙, detailed information (as original text) is shown in the text.

*, will be published in succeeding papers.

Table 0-6 is in the result.

Table 0-6 Reference employed for further detailed analysis

Law code	Ref.No.	Author	Total no. of articles	Quality (pattern of citing)	Language
UN	30	M.T.Roth	28	C1	English
	41	T.Kobayashi	16	C2(-D)	Japanese
LI	30	M.T.Roth	37	C1	English
	4	S.N.Kramer	35	A1'	English
	39	O.Iijima	16	A1	Japanese
E	30	M.T.Roth	60	C1	English
	39	O.Iijima	59	A1	Japanese
H	30	M.T.Roth	269	C1	English
	39	O.Iijima	248	A1	Japanese
	3	G.R.Driver and	249	A1'	English
		J.C.Miles			

key words and short explanatory notes for the above areas. Inspection of Table 0-5 leads us to conclusion that in the second ~ third steps comprehensive analysis on the above categories should be carried out.

Summarizing we can choose, from Table 0-1~ Table 0-4, the references employable for the further detailed analysis in the forthcoming part (Part I ~ VI).

1.7 Present Status of the study on the ancient Mesopotamia laws

1.7.1 Some methodological problems

In a word, the validity and reliability of the preceding studies seem not on very high level :

- a. They cover sporadically narrow category range (Table 0-5), using small number of the articles (Table 0-3).
- b. Without regard to lack of sufficient concrete evidence the author(s) seems in hurry to reach conclusion, beforehand planned (?).
- c. The researchers themselves seem not to study on objective fairness, but

being influenced by a kind of ‘psychological trauma’ (see, for example, ref.90) and since about 2000 AD such ‘trauma’ seems to have been overcome by the authors (see, for example, ref.38, 40, 43, and 45).

- d. Quantitative discussion is very few.
- e. Among the literatures cited in this paper (ref.1-47) only three tables (in ref.2) are discovered :

Except ref. 2 (Drive and Miles) (1952), which contains three tables (two Chronological tables (p xxiv and p xxv) and one table of (i) Fee for successful operations, and (ii) Dangers for unsuccessful operations (ref.3, p418), all references (ref.3-4, 7) except ref.2, had no table.

This fact suggests strongly that the study on the ancient Mesopotamia had very qualitative nature.

1.7.2 Unsolved target of the studies

- a. Social class in the ancient Mesopotamia has not yet decisively determined.
- b. Blood (DNA) relationships have not yet been studied extensively and thoroughly between the ancient Mesopotamia laws such as the UN, LI, E and H laws and the laws of the contemporary society including Japan.
- c. Human right (legal status) of ordinary people in the ancient Mesopotamia had not yet been studied (see, Part II).
- d. Legal support against the social misfortune (criminal victims, malpractice, product liability and legal relief to support social misfortune) in the Hammurabi law code had not been studied in detail (see, Part III).
- e. To our surprise, we cannot, even now, have any information on exhaustive survey (this does not mean to prepare simply a list of law codes) of the ancient Mesopotamian law codes (see, Part I ~ Part VI).

02 Appraisal of the ancient Mesopotamian society and its culture

2.1 What was described about Sumer (or Mesopotamia) in the textbooks of world history

2.1.1 Japanese high school textbooks of world history

Following five government approved-textbooks for high school world history, all published from the same company (Yamakawa Shuppan)⁵⁹⁻⁶³ , were employed for investigation :

Common understanding through the above high-school text books are briefly summarized⁶⁴ :

1. In order to manage (or to command) the large –scale canal system and to maintain the irrigation management (or enterprise) , an intensive theocracy (autocracy) was put into practice.
2. A social class consisting of king ,priest, and warriors, emerged to govern people (ordinary people and slave).
3. In theocracy, gods possessed ,in principles, all the land. Palace monopolized the foreign trade and peace treaty was concluded under the name of gods.
4. The Hammurabi law code put its foundation on the principles of retaliation of ‘**eye for eye**’.
5. Learning of practical use had been developed and the original culture was born there.

But, the development of ‘liberal thinking’ was not observed.

What is ‘learning of practical use’ and ‘freedom of thinking’?

I will show you an example here :

‘So-called Pythagoras theorem’ is even now, highly evaluated as one of the ten great discoveries in the science world : For example, American Chemist Society ACS, the largest academic society in the world (I am an emeritus member) noticed, several years ago in their Journal (‘Chemistry and Chemical Engineering’ (C & CE), that ‘Pythagoras’ discovery is the glory of European Culture. Note that, regardless of their excessive (?) praise, **‘so-called Pythagoras theorem had been extensively known in the Old Babylonian society , before more than 500 years earlier than Pythagoras’s discovery’**. We have now many cuneiform clay plates as decisive evidence for ‘so-called Pythagoras theorem. (see, YBC 2798 ; VAT 6598, and BM 34568).⁹³

These unquestionable evidences indicate that ‘so-called Pythagoras theorem’ is never the cultural product of Europe, but had been discovered by someone in the Mesopotamia (there was no custom to identify and memorize the personal name of discoverer). Was Pythagoras a plagiarist? He should had been familiar with Mesopotamian mathematics. It is now widely believed that large part of Greek mathematics (in particular, geometry) came from the Mesopotamia.

The above findings indicate that

- (1) Common understanding 5 (in 2.1.1) on ‘learning of practical use’ and ‘liberal thinking’ is a grundless malice against the Mesopotamian culture.
- (2) The original culture born in Mesopotamia is not only science for practice, but also science in its original meaning .

Remember that both the origin of discovery of ‘leap year’ and the prediction of solar eclipse (or moon eclipse) had been made by daily astronomical monotonous and tedious observation, repeated daily for

10²~10³ and more years. not by idle talk at tea nouse of men, who had lot of time.

(3) European culture has , at least in part, its main root in Mesopotamia.

Evidently the Japanese textbooks on the world history seems to be heavily infected with historical perspective of the western Europe (probably originated in the 18~19 century) (see also Table 0- 4 .).

Aftereffect caused by leaning such textbooks cannot be ignored.

2.1.2 European historical 'common' textbook .

European common textbook (for high school) issued from the European Union (EU) (edited by F. Delouch)⁶⁵ was used here for analysis.

Regrettably, we can find neither the word 'Mesopotamia', nor the word 'Sumer' , in Chapter 1 of the book⁶⁵. Only fragmental short descriptions are discovered on penetration of the Orient culture⁶⁶ ,as refining method of bronze⁶⁷, first agricultural community⁶⁸, and Phoenician⁶⁹ currency system⁷⁰. Unfortunately, I can not find there any systematic explanation of the Orient Culture. The book gives an impression to the pupils taking a course that, the European culture already originally (independently) developed before the contact with Orient culture, and the latter gave very restricted effect on European culture.

Conclusively, it cannot be considered that the students, studied this book, could easily recognize the origin of the present society.

2.13 University textbook²⁹ in USA on world economic history

This is the book²⁹ published in 1997 which I had adopted for a few semesters as one of textbooks of European economic history at undergraduate course. R. Cameron stated in his textbook published in

1997 that “in the early cities of Sumer, in contrast, the social structure was definitely hierarchical. The mass of peasants and unskilled workers, probably if not outright slavery ; they had no rights, property or other. The land belonged to the temple (or its deity) and was administrated by the deity’s representatives, the priest.” Note that any concrete evidence supporting his historical perspective is, as usual in this kind of book, not indicated in the book. The human rights of ordinary people and of even slave will be disclosed by the comprehensive analysis of the Hammurabi law code (see, Part II and Part III).

2.2 Negative and positive evaluations of the Old Babylonian (or Mesopotamian) society

2.2.1 Negative evaluation

A : M. Kishimoto (1968) :

1. With gradual rise of temperature new moderate temperature and inhabitable zone, which was adequate to live, was newly formed. Therefore, the migration to that direction (to the north) can be considered very natural. However, in fact, people moved to the southern marsh area, swarming together. This is my (Kishimoto) first wonder.⁷⁵
2. I (Kishimoto) cannot understand why the formerly advanced area weakened without creating new culture into the present day’s poverty area.
3. The surprising culture had been monopolized by king, together with small number of aristocrats, who exploited extremely poor ordinary people, and enjoying glory.
4. With the regular power, endorsed by the heaven (god?), king governed

the land and people. Thus the tyranny can be interpreted in terms of Asiatic character.⁷⁶

5. Truly mysterious several points from contemporary law idea are H196-H199.⁷⁷
6. Governor general had not the authority of the judiciary, and finances. He was only in charge of management of pure administration problems.⁷⁸

B : Van de Mieroop (2005) :

1. A high court official was still a 'slave' to the king.⁷⁹

C : K. Kuroda (1969) :

1. The Old Babylon I dynasty was a representative state, established with aid of deprivation for ordinary people (comment ; for example, see Part II),⁸⁰
2. The governing class was consisted of king, very small number of high-class officials, gland land owner and rich merchants. The economical foundation was formed by exploiting majority of lower freeman (farmers, cow breeders, gardeners, fishermen, craftsman, and soldiers). (comment : for examples, see Part II ⁸¹). **Comments** : The above phrase (1 and 2), inserted into an excellent main text, looked as it were suspended incompatible with other parts.
3. The farmers, who were overwhelming majority at this age, had probably no relation to letters.⁸²

D : F. Yajima (1984)⁸³ :

1. Yajima had a strong impression that people had been forced to live dreary life threatened with autocracy and punishment.

E : Toru Maeda (1996) :

1. The concept of 'liberty' was not clearly recognized to the end as citizen's right. This seems a decisive difference between 'liberty' in an ancient

Mesopotamia and citizen's liberty in Greece.⁸⁴

2. As observed from the city map of Ur, the residential sector is by far from the modern city plan. The Ur city had wave streets(avenue) and many dead end paths.⁸⁵ **Kamide's comments** : If we visit any old medieval town in Europe (sadly now under rapid removing) we realize clearly that 'so-called negative character of Ur, stated by Maeda, is not unique characters of the ancient Mesopotamia, but very common throughout ancient and medieval world . Consider, in order to defend the city from invasion of enemy introduction and instalment of 'wave street' and 'dead end path' will be very effective. Note that the same can be applied also to the castle towns, constructed in the Edo period. Although I'm not knowledgeable about Maeda's 'modern city plan' in Japan, but if it means broad straight streets and easy access to the main public buildings, it should be very stupid plan at that times.

2.2.2 Positive evaluation

A : J. Mottéro (1992) :

1. 'It is wrong to reverse divination for Mesopotamia and science for Greece, but that itself, divination had become a scientific type of knowledge and was, essentially, already a science'^{86,87}.

B : Georges Roux (1992) :

1. [We should not... be surprised to find that the Greek cultivation was build up or East Mesopotamian foundation⁸⁹ largely made up of Mesopotamia Material] .⁹⁰

C : P. Kriwaczek (2010) :

1. Many of judgements strike the modern reader as fair and reasonable.⁹¹

2.3 Comments to 2.2 :

2.3.1 Origin of Asiatic autocracy

Three exchanged letters (1853 A.D. July 2,6 and 12) between Karl Marx and Friedrich Engels stated the following hypothesis ⁹² :

Hypothesis (1) : A lack of private land ownership (of ordinary people), which was caused by the supremacy of artificial irrigation (over dry-and rain-fed agricultures), and a leading role of the government in the irrigation (agricultures) , are the key for understanding Asia. (words in parenthesis are added by Kamide).

Hypothesis (2) : An existence of village, which had a completely independent system and, what was more,forming a small world by itself.

The above hypothesis in the 'letters' had become clear to be absolutely nonsense ; because the facts definitely show :

Fact (1) We can find thirteen articles (H21, H27~H32, H36~H41) in the Hammurabi law, which admitted *the right of private ownership* of land, farm, houses, and orchard.

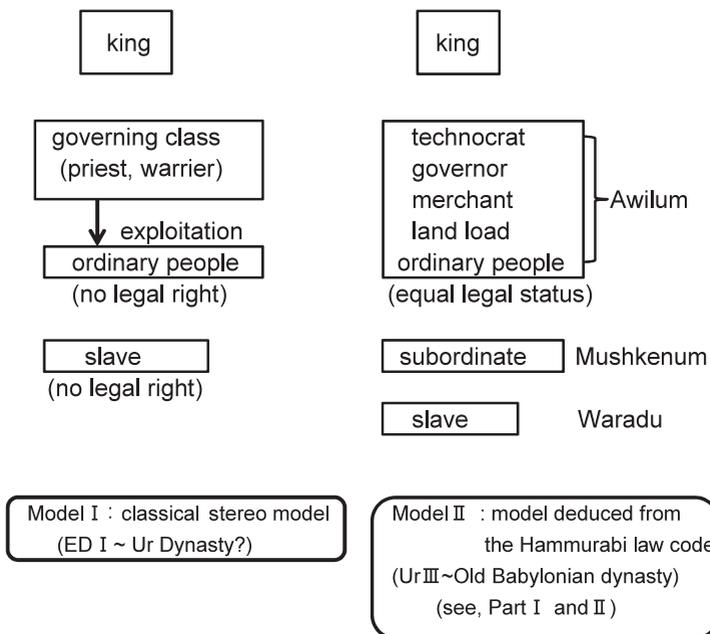
Fact (2) In fact, there remain *numerous private documents of buying and selling there*.

Fact (3) Excavations show that small villages were built closely along the canal bank (forming pearl necklace-like). *These villages were never independent*, but closely cooperated each other in management of the canal-irrigation network operation.

From hypothesis (1) the structure of Asiatic autocracy was readily

supposed to be consisted of super power (king + small number of governing class) + numerous slaves or slave-state people without any legal right (Model I). But the preposition of hypothesis (1) is denied by the facts (1) and (2). That is, the hypothesis (1) and (2) in the above letters are proved to be all nonsense; note that hypothesis (1) and (2) are inconsistent with each other. If the hypothesis (2) is valid, the power or authority of the government is limited and the centralization of the power would not be advanced. This means hypothesis (2) should be abandoned. Super-large scale irrigation cultivation was carried out by aggregates of a large number of family-run farm, which was, without exception, managed by a couple of husband and his wife (here, image a cell consisting a big animal). High skill in cultivation was needed for farmer to master and, in consequence, many articles, regulating the duty and responsibility of the farmers in irrigation cultivation, are found in the Hammurabi laws. The farmers were the expertized playing manager, who had larger degree of freedom in management and the responsibility of his result. Then, there was no-space in the ancient Mesopotamia for slave labor. (see, Part II).

When the above-mentioned famous letters, in which some discussion on 'decayed and now behind Mesopotamian culture was made, had been exchanged between Marx Engels (1853 June 2-12), they did not know the existence of the Hammurabi law and of course, could not recognize the paramount important role of the law in the history. Because the transportation of the stela, inscribed with the Hammurabi law code, from Elam to Louvre Museum had been made after 1853 A.D. (arrival date and date of exhibition are not known). Then, citation of their (M and E) work (as a blind follower) should be extremely cautious at any time.



Model I is traditional classic model, which proved inapplicable to the Old Babylon period. Model II is the model deduced from analysis of the Hammurabi law and also confirmed with excavated materials (clay documents). Validity of Model II will be demonstrated in Part II and Part III .

Model I cannot be examined in this study, because it is beyond the scope of this study. Remember that another model (rather) than Model I can be readily proposed if any.

2.3.2 My simple personal question

(1) Both Kishimoto (ref.6) and Kuroda (ref.10) gave title names and short explanatory notes on the Hammurabi laws (see, the third column of Table 0-5), implying that they were very familiar with the Hammurabi law (of course, including the ownership).

(2) In contrast, it is clear that they supported model I to represent the society of the ancient Mesopotamia (see, **2.2.1 A3** and **2.2.1 C2**).

These two, (1) and (2), contradict significantly, provided they are faithful to their profession. How could they ignore the ownership of ordinary people admitted in the H law? Or had they a different (nonscientific) way for interpretation of the law code?

The above is my very personal simple question. (we experienced often 'so-called' pseudo-scientific, was never 'genuine' scientific).

03 Methodology of the study

We employ as the primary materials the Iijima's works³⁹, which are described briefly as follows:

To each cuneiform script (1), its corresponding phonetic alphabet (i.e., transcription) (2), and Japanese word (3), both corresponding to (1), are concurrently given first. Then, cuneiform sentence in individual article is translated literally from Sumerian (LI) or Akkadian (E and H) into Japanese (4). Iijima succeeded to build-up a collection of Japanese articles of the Lipit-Ishtar, Eshnunna, and Hammurabi law codes. (1)~(4) are the indispensable materials.

On the basis of the materials we can now examine comprehensively particularities of the individual articles. In addition, the articles of the Ur-Nammu code law, translated by Kobayashi¹³ from Sumerian, to Japanese sentences are also used.

The accuracy and reliability of the Iijima's procedure and their results were confirmed by Kamide (see, Part I): Van de Mieroop (2005) demonstrated in his book⁴² that the full sentences of the two articles, Eshnunna law code no.54 (hereafter abbreviated as E54) coincides with the Hammurabi law

code no.251 (hereafter abbreviated as H251), showing $E54 = H251$ (Note that Van de Mieroop did not indicate the article numbers).

Corresponding Iijima's articles (in Japanese) (2002)³⁹ are absolutely the same as those of Van de Mieroop (2005). That is, the following two equations hold their validity: $E54$ (Van de Mieroop) = $E54$ (Iijima) for the E law code and $H251$ (Van de Mieroop) = $H251$ (Iijima) for the H law code. Note that Iijima's book³⁹ was published three years earlier than Van de Mieroop is.

The above primary materials can confidently be regarded as the experimental data base in science study. The materials are subjected to further rigorous and comprehensive analysis. First, we extract the needed data from the materials. Here, partial missing of the starting resource is, more or less, unavoidable. If the deficit of this kind is considered to occur accidentally (non-intentionally) we should not pay an exaggerated worry about the imperfection of the datum.

The basic tenets adopted for the analysis are :

- (1) The four law codes are compared using common measure, needless to say, without any prejudice or bias.
- (2) Reliable evidence – based research is carried out.
- (3) The results obtained by the analysis are shown concretely so that these results can be used for any future study.

04 Research Plans of This Study

4.1 Survey of size, contents, and transfer (Part I)

4.1.1 Morphological size, number of overall, legible and analyzed articles as parameters representing the law size

4.1.2 Anatomical analysis : categorization of the four law codes

- 4.1.3** Transfer of three preceding laws to the Hammurabi (H) law code :
Is the H code a direct heir of the preceding codes?

4.2 Social class and development of professions (Pat II)

- 4.2.1** Four classes

- 4.2.2** Šarru(king) :

Frequency of appearance of king in the law articles and functions
and authority of king

- 4.2.3** What is awilum? (legal status of awilum)

- 4.2.4** What is muskenum ?(legal status of muskenum)

- 4.2.5** Slave (Waradu or ir₁₁, amtu or geme₂) : Ownership, price, and
legal right

- 4.2.6** Relative size of three social classes : Was the ancient
Mesopotamia the servitude –system society ?

- 4.2.7** Development of the job specialization

Degree of differentiation : What job did medical doctor emerge
from, (evolution of job specialization)?

4.3 Legal litigation, penal law code, and civil law code (Part III)

- 4.3.1** Until the Hammurabi law code ; From customs to laws

- 4.3.2** Life-spun of the four ancient law codes and the area in which the
laws had been effectively performed

- 4.3.3** Formation of the Hammurabi law

- 4.3.4** The Hammurabi law code : Hammurabi's time and constitution of
the Hammurabi law and its correspondence to contemporary
laws : Is the Hammurabi law genuine law code?

- 4.3.5** God, divine judge, and oath:

Rise and transformation of shrine ; place where trials had been opened ; oath in front of God

4.3.6 Characteristic features of the Hammurabi law code : Legal support against social misfortune (criminal victims) ; malpractice, product liability ; legal relief to support social misfortune ; embryonic idea of human right (right to live , ownership and property right buying and selling) ; right of succession ; right of access to court , equal protection of laws ; living of contract.

4.3.7 Some questions to the Hammurabi law code.

4.3.8 Legal processing : Accusation and adjudication.

4.3.9 Crime and penalty : Category of the penalty ; death penalty ; comparison of punishments in the Hammurabi law code with Japan Penalty Code (JPC) ; bodily injury.

4.3.10 Theft and bodily punishment except injury.

4.3.11 Malpractice and product liability.

4.3.12 Civil law code (marriage and divorce) ; types of family ; inheritance.

4.4 The Written contracts and the commercial laws (Part IV)

4.4.1 Cuneiform tablet as record medium of contracts : (Tablet and contract, material, production and size , writing , writer of private documents and place of safe-keeping , contract made by ordinary people in the Old Babylonian period).

Buying and selling : Tenant farming contract ; Outbreak of contract.

4.4.2 Currency and money : Currency ; barley and silver as commodity means (Equivalence of barley and silver, what is 'price' in the Table IV 3~5) ; first appearance and its frequency of barley and

silver as currency ; categories where silver or barley was conclusively employed as major currencies.

4.4.3 Commerce : Pay and Reward (pay and reward in the Eshnunna and Hammurabi laws, conversation of pays, craftsman, medical doctor, ship-builder) : Comparison of pays in the Eshnunna ; law code with those in Hammurabi law code ; Lease.

4.4.4 Merchant : Merchants in Old Babylonian period ; merchant activities (finance, long-distance trading) ; merchant and farmer ; merchant and landlords ; merchant and major).

4.5 Analysis on the fundamental Data Base of Prehistoric Mesopotamia Sites (Part V)

4.5.1 Ancient sites excavated in prehistory Mesopotamia : Zone of Mesopotamia ; fundamental data base ; periods and altitude of the sites ; scattering of sites in the Hassuna-Samarra and the Halaf periods ; location of sites ; size of sites ; evolution of houses ; number of peoples living in the sites.

4.5.2 Domestication of plants and animals : Domestication ; domestication of animals and plants in Mesopotamia.

4.5.3 Limit of dry-farming system : Expansion of dry-farming area ; limit of dry-farming area ; limit of dry-farming rain-fed agriculture ; attempt of utilization of river-water for cultivation

4.6 Agricultural Law and Law of Retaliation (Part VI)

4.6.1 Agricultural law :

(1) Characteristics of the ancient Mesopotamia agriculture : Irrigation, advance of irrigation technology (advantages and

disadvantages, comparison of irrigation farming with rain-fed agriculture, ratio of yield/ seed of barley), farmer(tenant farmer, cultivation technology), canal construction and its maintenance : (2) Flood (some meteoroidal and geological characteristics, some archaeological and geological evidence : (3) Salinisation (decay of wheat production at Lagash) ; salinisation (phenomenon and its mechanism, conversion of wheat to barley) : (4) Land lord, tenant farmer, and gardener (cultivation of wasteland, various contracts among land load, tenant farmer (as buyer) and laborer) ; Examples of unfillment for contracts : Farmers and his neighbors, land load and gardener (contract between land load and gardener).

4.6.2 Law of retaliation : (1) Was the Hammurabi law code the retaliation law? : (2) The retaliation law transmitted in the Old Testament : (3)Is the law code or retaliation cruel?

4.6.3 Miscellaneous : (1) Domestic animals : (2) Plants and agricultural products : (3) Metals, birds, and wild animals ; (4) Disease and medical treatment .

0-5 Conclusion

1. Forty seven books on the ancient Mesopotamia, varying from treatises to popular books, were subjected for preliminary examination.
2. Number of articles, n_t , fully translated in the main text, is shown in **Table 0-3**. Top three has $n_t = 269$ (ref.30), 249 (ref.3), and 248 (ref.39), respectively. Average $n_t (< n_t >)$, except the above three references, is approximately 4.
3. Even at preset the final judgement on the status of awilum and

muskenum have not yet been established (**Table 0-4**). A significant change seems to have occurred in interpretation on awilum around 1992 (**Table 0-4**).

4. Based on the analysis tabulated in **Table 0-1 ~Table 0-5**, three books are selected for the further analysis of the Hammurabi law code (**Table 0-6**) : Roth (ref.30), Driver and Miles (ref.3), and Iijima (ref.39).
5. Categories covered by the reference books are collected in **Table 0-5**.
6. It is clear that the size and the transfer of laws had not been analyzed and just titles or short explanatory note were given in the literature (**Table 0-5**).
7. Present status of the preceding studies is briefly reviewed.(**1.7**).
8. Some methodological problems found in the literature are pointed out : narrow category range, lack of sufficient concrete evidence, psychological trauma, less quantitative discussion ,extremely small number of tables and figures (only 3 among the total 47 references). (**1.7.1**).
9. Unsolved targets of studies were shown : Social class ; blood relations among the four law codes : human right ; legal support. (**1.7.2**).
10. Negative evaluation (by Kishimoto, Kuroda, Van de Mieroop), and positive evaluation (by Bottéro, Roux and Kriwaczek) are demonstrated. (**2.2**).
11. The principle of methodology of this study is described in detail.(**03**).
12. Research plans of this study (Part I ~ VI) are also described.(**04**).

0-6 Reference

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Appendix

List of publications of this study (Part 0 ~ Part VI).

Morphological, Anatomical and Statistical Analysis on The Four Ancient Mesopotamian Law Codes Including The Hammurabi Law Code.

Part 0 ; This paper. (K. Kamide, *Journal of Social Science*, Nara Gakuen Univ., Vol.18, 71-108, 2017).

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