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## 中国农业博物馆编



中国农业出版社

中国农业博物馆丛书 中国农业博物馆 编

## 中国古代耕织图

主编 王潮生

中国农业出版社

## Compiled by China Agricultural Museum

# Farming and Weaving Pictures in Ancient China

Chief Editor: Wang Chaosheng

China Agriculture Press

中国农业博物馆丛书

### 中国古代耕织图

中国农业博物馆 编

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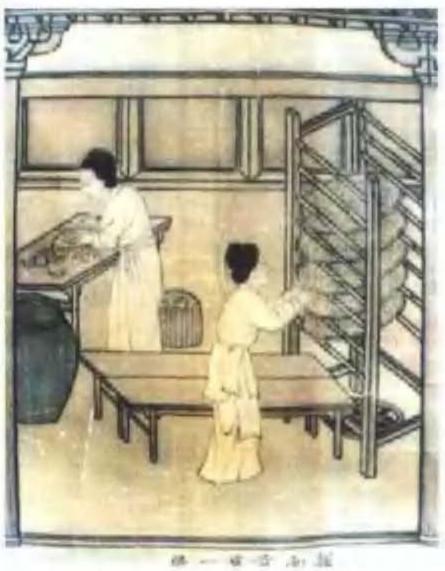
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清明日暖种 Warming up eggs on pure Brightness(3th solar term)



各面前第一眼 First moulting before Grain Rain (6th solar term)



第二眠 Second moulting



暖蚕 Warming up silkworms

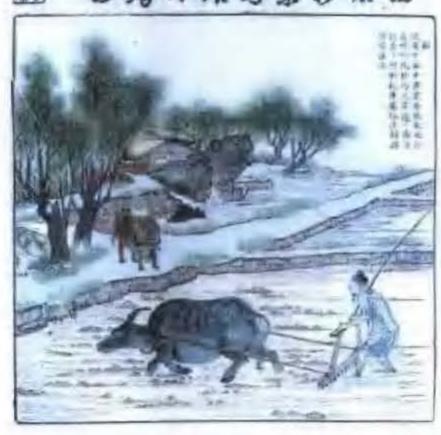
### 清·康熙耕织图》

The Qing Dynasty "Emperor Kangxi: Farming and Weaving"



# Ploughing

# 



W Smoothing



淡荫 Flooding

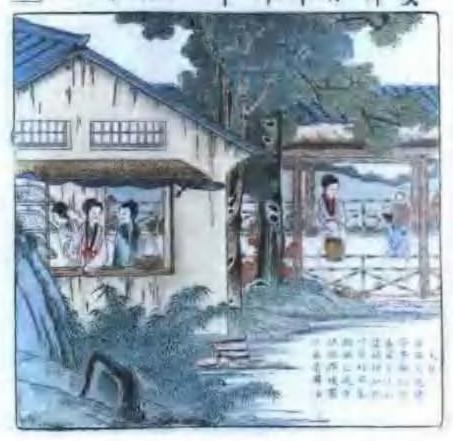


善 Milling

# 



二眼 Second moulting



大起 Removing tiny silkworms

# 



警茧 Storing Cocoons



蚕蛾 Moth emerging

原藏清宫养心殿的袖珍型耕织图 The small-type "Pictures of Farming and Weaving" originally collected in "Yang Xin Dian" (后补) in the Qing royal court.



程序 Harrowing and levelling



- # First weeding



择畫 Selecting cocoons



组 Weaving

## 《中国农业博物馆丛书》序

《中国农业博物馆从书》(简称《农博丛书》)是中国农业博物馆主编的有关中国农业文献、实物、图像等的研究著作,它是一部包括农、林、牧、副、渔各业和农业博物馆建设的专业性、学术性和资料性丛书。

我国是一个农业历史十分悠久的国家,有许多发明创造,取得过举世瞩目的辉煌成就。这些不但为历代的文献所记载,而且为越来越多的地下出土文物所证实;我国又是一个农业资源十分丰富的国家,不论在种类上,还是在品种上,都是世界上所少有的,其中有些还是我国特有的珍贵资源。如果将这些资料及有关研究成果汇编成书,则对传播古今农业知识,促进对某些问题的深入探讨和激发爱国主义热情,无疑将会起重要的作用。

随着改革开放政策的进一步贯彻执行,国际交往日趋频繁,来我馆参观并要求我馆提供 资料的国际友人日益增多,出版这套丛书将有助于国际友人对我国农业的历史和现状有进一步了解,并有助于国际学术交流。

农业是一个内容十分广泛的生产部门,涉及的面极广,我馆限于人力,不可能对各个领域都进行研究,为此,我们请了有关专家、学者给予指导、帮助或合作。所以,这套丛书中的著作,有的是我馆科研入员自行完成的成果,或是和馆外人员合作的成果;有的则是由馆外的学者、专家撰写的专著。

《农博丛书》由我馆研究室负责编辑,编辑的指导思想是坚持四项基本原则,贯彻"百花齐放、百家争鸣"和"占为今用"的方针。凡是在我馆业务范围内的著作,只要持之有故、言之有理、资料翔实丰富、有一定学术价值的,我们都热忱欢迎。但收入这套丛书中的著作,并不是每一部都代表我们的观点,这是需要在这里说明的。

创业伊始,经验不足,加上我们水平有限,这套丛书中难免有缺点或错误,敬请海内外 学者、专家多加指正。

中国农业博物馆 1989年1月

## China Agricultural Museum Series

Compiled by China Agricultural Museum, the China Agricultural Museum Series (Cams) consists of research material from China's agricultural documents, objects and pictures. It contains specialized and academic works as well as reference material concerning agriculture, forestry, animal husbandry, fisheries and the construction of agricultural museums.

A country with a long history of agriculture, China has produced numerous inventions and creations in agriculture and attracted worldwide attention with its brilliant achievements that have been not only recorded in the documents of past dynasties but also demonstrated in the increasing number of unearthed relics. China is also a country rich in natural resources, the kinds and species of which are rare and among which some are peculiar to China. The compilation of these materials and the research results will play an important part in disseminating knowledge about China's ancient and modern agriculture, promote research and stimulate national pride.

With the further implementation of the policies of reform and opening up to the outside world, our contacts with foreign countries are becoming frequent. More and more foreign friends visit our museum asking for informative material. The publication of this series will help our foreign friends further understand the history and status quo of agriculture in China, thus promoting international academic exchanges.

Ag iculture, as an important sector of production, involves a wide range of subjects. Due to limited personnel, it is impossible for the museum to conduct research in all fields. There fore, we have invited relevant experts and scholars to advise or co-operate with us. In this series, some material is the research results of the museum's science personnel or in co-operation with other people, while some are monographs of the external scholars and experts.

The Research Section of the museum is responsible for the compilation of Cams. Its guiding principle is to uphold the Four Cardinal Principles set by the Party and thoroughly implement the policies of "let a hundred flowers blossom and a hundred schools of thought contend" and "make the past serve the present." We sir cerely welcome those works that are based on full and accurate materials, have sufficient grounds for their views and possess academic value. We note that not all the views in this series are ours.

Errors and mistakes are inevitable in this series. We sincerely hope that domestic and overseas scholars and experts will provide comments.

China Agricultural Museum
January 1989

## 《中国古代耕织图》序

《中国古代耕织图》经过几年来的辛勤搜集、整理研究和选择,现在终于和读者见面了。从本选集的目录可以窥见,中国耕织图的起始可以追溯到战国时的采桑纹铜壶上,此后经汉至清,绵绵不绝,又不断充实丰富。宋代已形成了耕织图完整的体系,达到了传统农业通过图像推广操作技术的高峰。在中国农业史上大放异彩,为世界所注目。

中国农业遗产的特点是在文字记述系统以外,同时还存在用形像表达的图画系统。所不同者,文字以其信息载体的优势,加上纸张和印刷发明的应用便利,发展积累了大量农书,而反映形像过程的耕织图的发展显得缓慢滞后些,但农书也有其局限性,即不能直观地显示农业操作的形像过程和内容。如我们看《产民要术》感到吃力,就因为书中谈到的生产过程缺乏图像的配合说明,要凭我们的理解,想象出一副操作的形像,这就很可能各人的理解不同,脑子里建立的形像也必然不同。但是我们看到嘉峪关魏晋墓室中的壁画上那么许多的有关耕地、耙地、耱地、播种、脱粒、杨场等的生动画面,就会对《齐民要术》所叙述的文字获得触类旁通之乐。同样,我们看陆龟蒙《未耜经》描述的江东犁部件的结构,很是费劲,但如根据其所叙述的尺寸,经专人还原为江东犁的模型,就可一目了然。从耕织图中我们常常可以意外地发现已失传只剩文字描述的农具,如秦观《蚕书》所记脚踏缫车,唐宋时普遍使用,而形制不明,却在宋高宗《蚕织图》的至缫图中显露无余。

当然,我们不能把历代的耕织图只看成补文字不足的形像资料。我们今天来看历代的耕织图其实有多方面的意义,值得我们去深入研究。比如,首先我们可以研究耕织图的起源,如何从简单走向复合,最终达到如南宋楼畴《耕织图》这样完整的高峰。其次,我们应研究耕织图在历史上出现当时的背景和耕织图对生产所起的作用,以及对海外(日本、朝鲜等)的影响等。第三,耕织图作为一种文化现象,同民间流行的如刻印佛像、菩萨,小说(如《水浒》、《金瓶梅》)的插图,儿童学习用的《日记故事》(上图下文)的相互影响关系如何。因为自南宋楼畴《耕织图》以后,元、明、清继之,除了朝廷颁布的,还发展为民间自发的,如《便民图纂》的编纂缘起即鉴于楼畴的《耕织图》,虽然内容和苏州一带差不多,但"其为诗又非愚夫愚妇之所易晓,因更易数事,系以吴歌,其事既易知,其官亦易入"。并改题为"农务女红之图"。看过农务女红图的人都会发现它的普及通俗性是超过楼畴《耕织图》和后来清朝康、雍、乾三朝颁发的《耕织图》的,因而在民间所起的影响也必然更大。耕织图到清代还发展为民间的年画,如天津杨柳青和苏州都有耕织图年画,这就又从农业技术推广转化为如同戏曲、神话、风俗一样的文化现象。

耕织图的起始虽可追溯到战国时期,历汉、魏晋南北朝而不断增加,但总还是停留在分散表达的阶段,为什么到宋代才系统化形成耕织图呢?这当然和唐宋以后全国经济文化重心南移有关,不妨可以说象楼踌开创的《耕织图》是长江流域及其以南水稻蚕桑大发展后派生出来的产物。黄河流域在宋以前是中国农业生产的主要区域,又积累了那么多著名的农书如《管子·地员篇》、《吕氏春秋》上农四篇、《氾胜之书》、《齐民要术》等,为什么没有较系统

的如舌世耕织图这样的反映北方旱农的图画问世呢?这是一个值得探讨的问题。

新炽图之所以称耕织、只是一种概括。南方以水稻为主要粮食作物,故以水稻栽培的全世里称"耕",蚕桑是衣着的代表,故以"织"代表衣,衣食为民生之本的意思,但北方耕织图中的整地、播种、收获都指的粟麦之类,至于衣着原料,蚕丝织品实在是上层人士的穿着衣料、老百姓还是靠麻织品,这是耕织图的局限性。宋以后,棉花栽培发展很快,已超过丝寒的消费,但是清代的耕织图仍拘泥古训,不作变动。直至乾隆年间,直隶省总督方观承于1765年(乾隆三十年)命人绘制一整套棉花从播种到收获加工的图画共16幅、每幅都有文字说明,可谓图文并茂。特别是图文中提到的棉花整枝摘心技术,是极为重要的科技史资料。这个《棉花图》可说是历代相沿不变的耕织图的一次改革和创新,能联系民生衣着的实际。方观承将棉花图献给朝廷后,乾隆看了很赞赏,乾隆好作涛,于是又对每幅图画加题诗一首,成为御题棉花图,现在流传的是其刻石的拓本,是极有价值的中国植棉史文献,耕织图方面"织"的更新。

最后,需要指出的是,自楼畴《耕织图》问世至清末为止的 700 多年中,耕织图在国内的流传及其影响的文献很少,而其传到日本和朝鲜的影响似较国内还大。建国以后农史界专门研究耕织图的人也很少,而日本研究耕织图的学者却不下十多位,早期的有凋蘖吉之、天野元之助等,近年来渡部武教授用了大量槽力从事耕织图版本流传的研究,他所接触过的耕织图版本近六十种之多,这使他对耕织图的起源、版本流传,对日本的影响等有了可以深入研究的基础,同时又旁及科技、风俗、美术等方面多角度地探讨。在我国北京、南京、广州等地作过专题报告交流,受到国内农史界的欢迎。也是对我们今后开展耕织图研究的一个促进。新鲜方面据笔者所知,对中国古代农业、农节(包括耕织图)给朝鲜农业带来的影响也有不少学者在研究,限于文字信息交流渠道的不畅,我们所知极为有限,今后的交流传统。因此,这本《中国古代耕织图》的出版,实在是一件大好事。希望通过这本选集的新了起国内农史界同人的注意,对这方面有兴趣的人特别是青年农史工作者,可以此选集为新门砖,登堂入室,就其中任何一个方面。作深入展开的专题研究,揭示出潜藏在它背后的有关农学史、农业技术史以至民俗、美术和文化交流渚方面的丰富内涵,而不局限于提供形象参考资料或民俗美术的欣赏上。

游修龄

### FOREWORD (1)

After several years of conscientious collection, selection, collation and research, the album Farming and Weaving Pictures in Ancient China has come out to greet the readers. From the contents we can see that the farming and weaving pictures in China can be traced back to the bronze pot with an engraved linear picture of mulberry leave-picking in the period of the Warring States (475—221B.C.) and had been constantly enriched and replenished through the Han down to the Qing dynasties. It was not until the Song Dynasty that a complete system of farming and weaving pictures was formed, reaching a climax in the popularization of operational techniques of traditional agriculture through pictures and graphs which have drawn worldwide attention with their radiant splendour.

One of the prominent features of China's agricultural heritage lies in its ideograph system—expressing things in images—in tandem with a literal system. The only difference between the two is that whereas the written language, an information carrier reinforced with the invention and application of paper making and printing, developed very quickly and pro duced a huge amount of agricultural books, the images and pictures describing larming and weaving were relatively backward and slow to develop. However, agricultural books are also limited in that they lack an objective demonstration of agricultural processes. For example, "Qi Min Yao Shu" (Essentials of Livelihood) is often difficult to understand because of its lack of graphic illustrations. We can only produce images of a farm operation in our mind based on our comprehension of the book's contents. Since different people have different understandings of the text, the images in each of us inevitably differ. The lively pictures of ploughing, harrowing, levelling, seeding and shelling on the murals of the Wei and Jin mausoleums in Jiayuguan Pass are the best illustraton of the contents of "Qi Min Yao Shu. "Likewise, we often find it difficult to make clear the structure of the Jiangdong plough described in "Lei Si Jing" (Book of Farm Implements) by Lu Guimeng, but when a model was made in accordance with the measurements given in the book, its structure becomes very clear at a glance. In viewing the ancient farming and weaving pictures, we often come across those farm implements described in ancient books but not handed down from the past generations. For instance, the structure of the pedal recling machine in "Can Shu" (Book of Silkworm) by Qin Guan, a tool commonly used in the Tang and Song dynasties, was also revealed in detail in Emperor Gaozong's "Can Zhi Tu" (Pictures'of Silk Weaving) of the Song Dynasty.

We should not, however, take farming and weaving pictures simply as images to complement literal works. They are of significance in many aspects and worthy of extensive re-

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search. First, we should focus on their origin and their development from a crude implement to a refined and complex one which finally reaches the peak of completeness such as Lou Chou's "Geng Zhi Tu" (Pictures of Farming and Weaving ) of the Southern Song Dynasty. Secondly, we may research the historical background of the pictures, their impact on use in farm production and their influence overseas, such as on Japan and Korea. Thirdly, we may research the mutual influence and interaction between the farming and weaving pictures on the one hand and such objects as the Buddha figure carving and printing, book plates such as those in the "Outlaws on the Water Margin" and "Jin Ping Mei," and the children's picture books on the other hand. From the time of the appearance of Lou Chou's works in the Southern Song Dynasty down to the Ming and Qing dynastics, in addition to the illustrative documents promulgated by the imperial courts, there were various kinds of popular books on farming and weaving. For example, the picture book Bian Min Tu Zuan (Illustrations of People's Livelihood) was derived from Lou Chou's "Pictures of Farming and Weaving" with the contents similar to the farm work around Suzhou described in the latter. "Some of the (latter's) contents, however, were changed or simplified and their accompanying poems, too protound to be understood by common people, were replaced with Suzhou folk rhymes in order to make them more understandable." The title of the book was also changed into "Nong Wu Nü Hong Zhi Tu "(pictures of farming and weaving ). Those who have read the book can easily understand that it was more popular than Lou Chou's book and all of the "Pictures of Farming and Weaving" promulgated respectively by emperors Kangxi, Yongzheng and Qianlong of the Qing Dynasty, and that its influence was more widespread. During the Qing Dynasty, the pictures gradually became material for the Lunar New Year pictures circulated among the common people. Thus, their function was transformed from the popularization of agricultural techniques into a cultural phenomenon similar to opera, mythology and folk custom.

Although the pictures of farming and weaving date back to the Warring States Period and developed in the ensueing Han, Wei and Jin and Southern and Northern dynasties, they remained in a scattered and haphazard state. Why was it not until the Song Dynasty that the pictures became systematized? It has of course something to do with the southern shift of the national economic and cultural centre of gravity since the Tang and Song dynasties. We might as well say that the farming and weaving pictures pioneered by Lou Chou were the product of the development of paddy farming and silkworm raising in the Yangtze River valley and the region to the south. The Yellow River valley was the main area of agricultural production in China prior to the Song Dynasty and there were many famous agricultural books, such as "Di Yuan Pian in Guan Zi" (Earth Section of Guan Zi), the four articles on farming in "Lü Shi Chun Qiu" (Lü's Spring and Autumn Annals), "Fan Sheng Zhi Shu" (Works by Fan Shengzhi) and "Qi Min Yao Shu" (Essentials of Livelihood). Why were there no such pictures as Lou Chou's "Pictures of Farming and Weaving" to reflect dryland farming in the North? This is a problem worthy of inquiry.

Calling the pictures "farming and weaving pictures" is only a generalized description. In the South, rice is the staple food crop and so "farming" refers to the complete process of paddy cultivation. The same is true with "weaving," which refers to mulberry planting and silkworm raising, for they represent the clothing of the southerners. Such food and clothing were the foundation of the people's livelihood. In the North, the pictures of field preparation, sowing, harvesting and so on were closely related to the growing of wheat and millet. As for silk, only people of the upper social strata could afford it, while the common folk relied mainly on linen for their clothing. This reflected the limitations of the farming and weaving pictures of the North. After the Song Dynasty, cotton cultivation developed quickly with consumption far exceeding that of silk and linen. Sticking to ancient teachings, however, the various editions of "Pictures of Farming and Weaving" still remained without any changes until 1765 (the 30th year of the reign of Qing Emperor Qianlong) when Fang Guancheng, Governor-General of Zhili (present day Hebei Province) gave orders for a set of 15 captioned pictures depicting the complete process of cotton culture from sowing to harvesting and processing. Excellent pictures and captions, those of prunning and bud-nipping techniques in parti cular, are very important historical reference materials for science and technology. This "Mian Hua Tu" (Pictures of Cotton) can be regarded as both a reform and an innovation of the "Pictures of Farming and Weaving" which remained invariable for ages. This picture book is very practical and the techniques it described are applicable to farm production. After its completion, Fang Guancheng offered the picture album to the imperal court and Emperor Qianlong appreciated it very much. As a poetry addict, the emperor inscribed each picture with a poem of his own, hence the title "Yu Ti Mian Hua Tu" (Pictures of Cotton with Emperor's Inscriptions). The copies now in circulation are duplicated rubbings of the carved stones and of great value for historical documentation of cotton culture in China and can also be considered as a rejuvenation of the latter half of the "Pictures of Farming and Weaving."

Finally, what must be pointed out is that during the 700-plus years from the time Lou Chou's "Pictures of Farming and Weaving" came out to the end of the Qing Dynasty, only a few related research works or pieces of literature were in circulation domestically. In Japan and Korea, however, the picture's influence seemed to be greater. The situation has not changed even after the founding of the People's Republic of China, with only a few people engaged in special studies of the "Pictures of Farming and Weaving," while in Japan, a dozen scholars were dedicated to the research work of pictures such as Yoshiyuki Sudo and Haranosuke Amano in the early period. In recent years, Prof. Takeshi Watabe has devoted much energy to researching the circulation of various editions of the "Pictures of Farming and Weaving." He is acquainted with as many as 60 editions of the book. This has enabled him to conduct extensive research on the origin, circulation of its different editions and its impact upon Japan. He has also studied the book's scientific and technological, folk custom and artistic aspects. During his visit in China, he reported on this special topic and held academic exchanges with his Chinese counterparts in Beijing, Nanjing, Guangzhou and other cities.