

# Introduction to Clothing Manufacture Second Edition

服装专业双语教材

原版风暴

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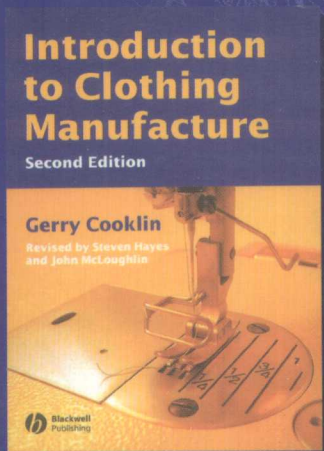
侯凤仙 译

# 服装

# 生产概论

中文注释版

(第二版)



内赠光盘



中国纺织出版社

原版风暴  
服装专业双语教材

# Introduction to Clothing Manufacture

Second Edition

## 服装生产概论

(第二版)

Gerry Cooklin

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China Textile & Apparel Press

## 内 容 提 要

本书概述性地介绍了服装的生产,全景式地介绍了一个服装企业的日常操作及相关组织机构,包括管理、设计、市场、财务、供应、质量控制和成品管理等,同时以丰富的插图为背景解释了服装制作中的各个实践环节——从初始设计、交货到零售给消费者。

作者在英国和以色列的服装行业有 30 多年的工作和教学经验,负责服装工艺与产品开发。

修订版作者是英国服装工艺专业资深教师以及服装产业的国际技术顾问。

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# Preface 序

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As with the first edition, the objective of this book is to provide an introductory and panoramic view of the managerial and technological factors which influence the day to day operations of a clothing manufacturer. Yet, since the publication of the first edition in 1991, there has been continual change to the global distribution of this still-vibrant industry. From a localised perspective, it is easy to see the industry only in the negative light of factory closures and the migration of manufacturing. However, this offers new opportunities and adventures to those people engaging in the fashion business. To this end, we have attempted to bring some sections of the book up to date with recent developments: for example, by giving an indication of the cost to manufacture in the countries now involved in the global supply of fashion goods; the new technologies involved in joining textile materials together; the need to reconsider how manufacturing technologies are exploited; emerging trends in garment transportation; and, covering all of this, the quality management issues facing a globally distributed supply chain. We hope we have done this while keeping the integrity of Gerry's first edition and yet adding our own interpretation of the current environment. If we can reiterate the statement in the original preface:

'No single book can provide a completely comprehensive and in-depth explanation of all the factors involved in the design, marketing and production of clothing. Many of the topics are the subject of specialist literature, to which readers should refer for any extensive studies. The book does provide a useful foundation for advanced study and will be helpful as a practical reference tool for the future.'

We wish you luck with your endeavours in the fashion business and hope that this book can help in some small way.

*Steve Hayes and John McLoughlin*

# 序

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本书在第一次出版时，内容主要涉及那些影响日常生产的服装管理和技术方面的因素，为服装生产企业提供概述性的、包罗万象的观点和方法。但是，自从本书1991年第一次出版以来，充满活力的服装产业在全球范围内不断发生变化，通过对局部地区的观察很容易发现服装产业呈负数增长，某些加工基地出现关、停和迁移的情况。这对那些致力于服装贸易的商家来说是机会也是挑战。因此，我们力图在本书中加进一些适合当前服装产业的内容。例如，书中列举了参与全球服装供应国家的加工成本参考数据；论述了纺织材料加工的新工艺；重新讨论了如何开发新的制造技术及其必要性；讲解了服装运输的新趋势；同时也涉及应对全球供应链的质量管理体系。我们希望本书既能保持格里第一次出版本书时的完整内容，也能加进我们对当前服装产业环境的理解。在这里我们还想重申：

“没有一本书能从服装设计、生产和销售各环节给予全面讲解并深入阐述，许多观点也只是专家们的理论论述，读者还须做更深入的研究。本书为大家提供了进一步研究的基础，也是很有实践价值的参考工具，对个人将来的发展很有帮助。”

我们衷心地祝愿您所投身的服装生意兴隆，并希望这本书能为您的事业发展尽微薄之力。

斯蒂文·海兹  
约翰·麦克洛夫林

While the way we talk about the 'fashion business' now reflects the transformation of a traditional, locally based, production-centred industry into a creative and knowledge-based feeder for a consumer-centric retailing business, it is important to acknowledge that the essence of clothing manufacture has changed less than is suggested in the new language that we use. Fabric still needs to be cut, although this is now commonly done with computer-controlled bladed cutters (or is perhaps even laser cut) rather than by hand with straight knives; it still needs to be joined together, still predominantly by sewing but also now using non-sewn techniques; and finally, it still needs to be packaged and distributed. Indeed, because clothing manufacturing is essentially still a labour-intensive process and because of the consumer-centric nature of the modern retail environment, it is increasingly important that the resources employed be managed effectively. This need is compounded by the global nature of the fashion business.

The cost of direct labour, and the consumer's desire for value, have worked together over the last 20 years to drive production to lower and lower cost production centres (see Table 1.5, p. 6). At the time of writing this second edition, it is difficult to ignore the rise of China to the position of 'the factory of the world'. Other dominant manufacturing centres include India, Sri Lanka and Turkey – but where next? In time, it is possible that South America and even sub-Saharan Africa (with improved stability and health) will be the main suppliers of manufactured goods to the consuming world. Wherever the products are made, the principles outlined in this book apply: whether we talk about 'fast fashion' for the fashion business or 'making clothes', the effective management of people, materials and time is at the centre of an efficient enterprise.

我们讨论“服装贸易”这个问题时，着重研究服装产业从传统工业、本地化为主、以生产加工为核心，到具有创造力的、以熟练技术为基础、以消费者为核心的零售业的转变。我们必须承认服装生产的本质过程远不及我们提出的理论观点变化迅速。尽管现在普遍采用计算机控制的裁刀（有的还用激光裁剪）代替了手工直刀电剪，但面料依然需要裁剪；虽然目前具备无缝制技术，但多数服装还需缝纫拼合起来；最后还需要包装和分发运送。实际上，由于服装产业是劳动密集型行业，并且现代零售业是以消费者为中心的特点，有效地管理资源变得越来越重要。

近 20 年，直接劳动力成本和消费者预期价格驱使以生产为中心的企业不断降低成本（见表 1.5）。编写本书的时候，我们注意到中国作为“世界工厂”的崛起，还有印度、斯里兰卡和土耳其等国也同样如此，同时，南美和撒哈拉沙漠以南的非洲地区也将成为消费品领域的主要供货商。无论产品在哪里生产，本书论述的服装生产理论是相通的：不管是服装贸易商还是服装生产商，有力的人员管理、原材料组织和生产时间的控制都是高效率企业的核心内容。

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## Preface by Translator 译者序

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科学技术的发展以及新设备、新工艺的应用使服装产业发生翻天覆地的变化；服装贸易国际化使服装的设计、加工、销售等模式也随着市场的变化而变化。因此，本书紧紧围绕市场，系统介绍了新模式下的服装生产技术、最新的服装企业模式等内容，作为双语教材深入浅出，内容丰富，论述完整，语言简洁，不仅能提高读者的语言能力，也能系统地了解适合当前形势的服装技术，为服装专业院校和企业技术人员提供很好的参考资料。同时，希望此书能引导读者较全面地跟进服装行业的发展，能一定程度上为企业提供一些符合我国现实生产技术的管理思路。

本书译者多年来从事服装设计、服装造型结构和服装专业英语的教学和研究工作，先后发表过多篇论文和课题研究成果，希望通过此书的翻译能与同行更多地切磋交流。

在本书的翻译过程中，得到了中国纺织出版社刘磊女士的大力协助，在此表示诚挚的谢意。鉴于译者水平有限，加上时间比较仓促，文中错误和不当之处在所难免，恳请读者批评指正。

译者

2007年1月

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**Part 1 第一章**

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# **THE CLOTHING INDUSTRY**

**服装产业概述**



# 1 Structure of the Clothing Industry 服装产业结构

## Size structure 企业规模结构

Entry to the clothing manufacturing industry has always been easy because of the relatively small amount of capital required to purchase machinery and the necessary raw materials, and the availability of relatively low cost and low skilled labour (increasingly scarce in the economically developed nations). For over a century the industry has been dominated by one simple, cheap and long-lived tool, the basic sewing machine, and this not only facilitates entry into the industry but virtually dictates its structure. This is amply demonstrated by the large number of small factories which exist within the industry.

A study specific to the UK clothing industry conducted in 1996 illustrates this view (2). Table 1.1 is an extract showing enterprises of fewer than 100 employees accounting for 97.7% of all enterprises, 52.2% of all those employed, 47.7% of gross output and 46.6% of net output.

What should be of interest to the reader is the fact that in the original edition of this book a 1971 survey of the clothing industry within the European Economic Community (now, of course, the EU) also showed the preponderance of small factories (25). So we see that although the global activity of the industry may be more dispersed and the nature of the products being made more varied, there is still a high level of reliance upon small manufacturers which has remained through a period of consolidation in other manufacturing industries such as automotive, chemical and materials. At that time, the total number of people employed by the EEC clothing industries was 1 608 500 and they were dispersed over 26 500 factories, with the distribution shown in Table 1.2.

Small factories employing up to 25 people represented 44% of the total number of factories in the industry, and in themselves these small factories accounted for a substantial percentage of the total clothing production, especially where fashion merchandise was concerned. However, the bulk of clothing production, as measured by the number of employees, was concentrated in factories that had more than 100 employees, as shown in Table 1.3.

According to this table, nearly 50% of the people working in the EEC clothing industry were employed in large factories having over 100 employees. The total

服装产业

欧共体服装产业

表 1.1 英国服装产业规模的基本分布(%)，指具备可持续生产能力的企业

**Table 1.1** Basic size distribution (%) of UK apparel (division 18) manufacturing industry (2). Reproduced with permission

<u>Size category</u> 规模档次	<u>ENT</u> 企业数	<u>EMP</u> 就业率	<u>GO</u> 毛产量	<u>NO</u> 净产量
1-9	71.9	20.4		
10-19	13.6	8.6	47.7	46.6
20-49	9.1	13.1		
50-99	3.1	10.1		
100-199	1.1	7.7	7.2	6.9
200-299	0.5	5.6	5.6	5.0
300-399	0.2	2.7	2.8	2.6
400-499	0.1	3.1	3.8	3.7
500-749	0.2	7.1	9.9	9.8
750-999	0.1	3.8	4.7	4.9
1000-1499	0.1	3.0	3.0	3.1
1500-1999	0.1	4.6	7.0	9.1
2000	0.1	10.1	8.2	8.2

ENT = 企业数; EMP = 就业率; GO = 毛产量; NO = 净产量。

ENT = enterprises; EMP = employment; GO = gross output; NO = net output.

表 1.2 根据雇员人数来看企业数的分布

**Table 1.2** Distribution of factories according to employees

<u>Employees</u> 雇员人数	<u>Factories</u> 企业数
1-25	11 660
26-50	8 480
51-100	3 630
Over 100 100 人以上	2 730

表 1.3 根据企业数来看雇员人数的分布

**Table 1.3** Distribution of employees according to factories

<u>Number of employees</u> 雇员人数	<u>Total employed</u> 总就业人数
1-25	212 323
26-50	294 355
51-100	310 440
Over 100 100 人以上	791 382

structure of the EEC clothing industry at the time of the survey was as shown in Table 1.4.

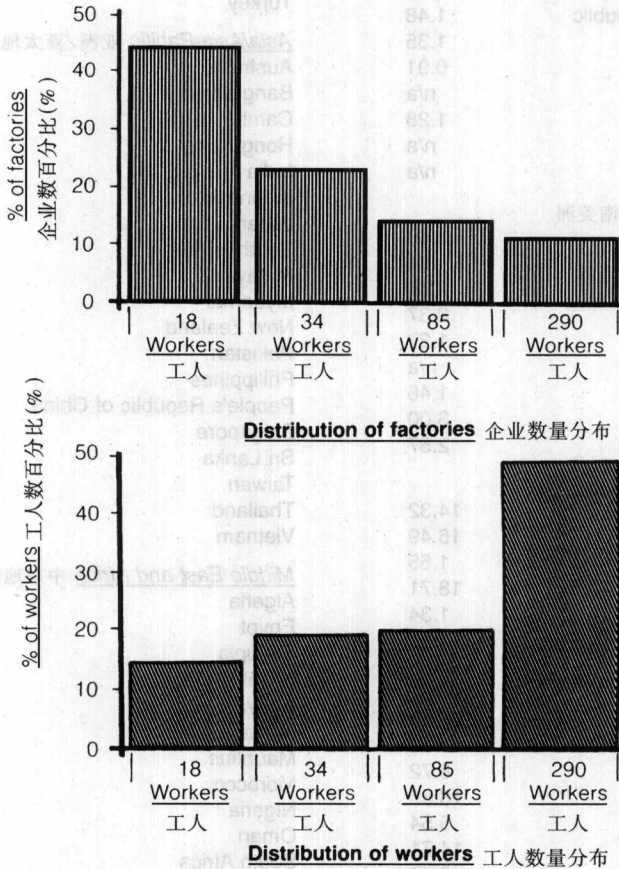
### Manufacturing structure 生产结构

The clothing industry manufactures an enormous variety of garment types ranging from work clothes to ball gowns, and the production itself can be carried out by one of two types of organisation: a manufacturer or a sub-contractor. This model

**Table 1.4** Distribution of employees and factories (see also Fig. 1.1)

Number of factories 企业数	Average number of employees 平均雇员数
110660	18
8480	34
3330	85
2730	290

表 1.4 雇员数和企业的分布 (参见图 1.1)



**Fig. 1.1** Distribution of workers and factories (EEC 1971)

图 1.1 工人数量和企业的分布 (1971 年欧洲经济共同体统计)

of production is further complicated by the relationship with a retailer (the public face of the clothing industry) where a retailer can work directly with a manufacturer, or even be part of the same company; interact with a manufacturer through a sourcing agent; or buy products from a wholesale distributor. Whatever form the manufacturing organisation takes, it is likely to be globally dispersed, with the assembly stages (and varying amounts of the other functions) located in low labour cost countries. Indeed the disparity between labour costs (Table 1.5) can be



表 1.5 1998 年全球范围内劳动力每小时的美元值。该资料由沃纳国际提供。

**Table 1.5** Hourly labour costs worldwide in US dollars (including on-costs), 1998. Data kindly supplied by Werner International

<b>Geographic group</b> 地域	<b>Rate</b> 美元值	<b>Geographic group</b> 地域	<b>Rate</b> 美元值
<b>NAFTA</b> 北美自由贸易区		<b>Other European</b> 欧洲其他国家	
USA	10.12	Bulgaria	n/a
Canada	9.89	Norway	18.23
Mexico	1.34	Romania	1.04
<b>Central America</b> 中美洲		Russia	0.56
Costa Rica	2.52	Switzerland	17.56
Dominican Republic	1.48	Turkey	1.84
El Salvador	1.35	<b>Asia/Asia-Pacific</b> 亚洲/亚太地区	
Guatemala	0.91	Australia	9.41
Haiti	n/a	Bangladesh	0.30
Honduras	1.28	Cambodia	0.20
Jamaica	n/a	Hong Kong	5.20
Nicaragua	n/a	India	0.39
<b>South America</b> 南美洲		Indonesia	0.16
Argentina	3.66	Japan	13.55
Bolivia	n/a	South Korea	2.69
Brazil	2.03	Malaysia	1.30
Chile	2.37	Myanmar	0.13
Columbia	1.27	New Zealand	5.19
Paraguay	n/a	Pakistan	0.24
Peru	1.46	Philippines	0.76
Uruguay	3.00	People's Republic of China	0.43
Venezuela	2.57	Singapore	n/a
<b>European Union</b> 欧盟		Sri Lanka	0.44
Austria	14.32	Taiwan	4.68
Belgium	16.49	Thailand	0.78
Czech Republic	1.65	Vietnam	0.22
Denmark	18.71	<b>Middle East and Africa</b> 中东地区和非洲	
Estonia	1.34	Algeria	n/a
Finland	13.96	Egypt	0.68
France	13.03	Ethiopia	0.27
Germany	18.04	Israel	5.37
Greece	6.55	Kenya	0.34
Hungary	2.12	Madagascar	0.31
Ireland	8.72	Mauritius	1.03
Italy	13.60	Morocco	1.36
Malta	5.54	Nigeria	0.69
Netherlands	14.71	Oman	1.89
Poland	2.77	South Africa	1.39
Portugal	3.70	Tunisia	n/a
Slovakia	1.30	Zambia	0.36
Spain	6.79		
Sweden	16.30		
UK	10.86		