Week 3

The woollen & worsted industries to 1780

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https://open.conted.ox.ac.uk/series/manufactures-industrial-revolution
Week 2 takeaways

- Proto-industrialization theories give us some useful concepts for studying specific pre-factory manufacturing industries
- More a framework than a predictive model
- Artisan systems did not necessarily develop into putting-out systems
- Proto-industry contained the seeds of its own demise
- Although factory industrialization often grew out of proto-industry in the same area, some areas de-industrialized and industry spread to new areas
- Other factors needed to explain changes, including marketing, industrial relations, and local politics
Week 3 outline

- Processes in woollen and worsted hand manufacture
- Outline history – changing fashions, home demand and exports
- Organization of the industry in the West Country, Norwich and Yorkshire
- How organisation and marketing affected success
- How well different regions responded to changing fashion and demand
Woollen cloth

- Used carded, short-staple wool
- Traditional from medieval period, predominated in Tudor exports
- Types of cloth - broadcloth, kersey (lighter, less heavily fulled)
- Export cloth high and medium quality – limited demand growth
- Wool was sorted, willeyed, carded, spun, woven, fulled, finished – could involve raising nap, shearing, pressing, dyeing
Worsted

- Used combed, long-staple wool
- More suited to the Saxony spinning wheel, introduced to England late-16c
The New Draperies

Developed late-16th and 17th centuries, via protestant immigrants from Low Countries
• Lighter fabrics more suited to warmer climes, new house design
• Product innovation
• Worsted or half-worsted stuffs
• Says and bays (worsted + wool, lightly fulled)
• Bombazine (silk + worsted)
• Serge – twill weave, smooth finish
• Calamancoes – glazed like satin, or cottoned
The New Draperies – furnishing fabrics

- Served middle-class urban aspirations
- Used as lining fabrics
Wool cloth output 1700-1800

Estimated output:
- Wool cloth production increased 250%
- Exports rose from 40% to 2/3rds of production
- Wool cloth the largest industrial sector in 1770
- Yorkshire 20% of England and Wales wool cloth production in 1700
- Yorkshire output increased 800% by 1800
- Cotton overtook wool after 1800
Discussion topics:

• How were the woollen and/or worsted industries organised before 1780 in West Yorkshire, Norwich or the West Country? (E.g. artisan or putting-out system.)

• How did this organisation affect the success of the industry?

• How well did different regions respond to changing fashions and demand?
West Country woollen industry

- Rural industry arose in 13-15th centuries to make use of water-powered fulling mills
- Freed production from guild control
- Major product was heavily-fulled broadcloth
- Woollen industry incentivised by Henry VII's prohibition of raw wool exports
- Parliament banned use of gig-mills for raising nap in 1555
- Most cloth sent undyed to London for export
- Stroud-water scarlet dyed locally

Broadcloth suit, 1710, VAM
West Country putting-out system

Figure 1
The organisational structure of the West of England woollen industry

Parade House, Trowbridge, 1730
Each cloth high value, individually tracked. A medium-sized 18c clothier made hundreds a year.

Cloth sold through Blackwell Hall, London, by factors, to merchants trading with European countries, the East India Company, Levant Company, or within Britain

High profit margin of 15-20% but sold on a year’s credit

Slow capital turnover

Manufacturer divorced from end market

Traditional product, no scope for product innovation
Norwich

• Third largest city in England, biggest manufacturing town
• Worsted manufacture declining around 1550 due to Low Country competition
• Guild and city leaders attracted Flemish and Dutch immigrants to introduce new draperies
• Essex and Suffolk also introduced new draperies
• By 1700, considerable export to Spain, Portugal, Italy, the Levant, Holland for re-export
• Home market bigger
• Sea transport via Lynn and Yarmouth
### Employment

Employment in a week to manufacture a 248 lb pack of long wool into fine worsted stuff (1715)

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<tr>
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<th>Total earnings £ s d</th>
<th>Weekly earnings</th>
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<td>7 Combers</td>
<td>3 10 0</td>
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<td>Dyeing</td>
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<td>250 Spinners</td>
<td>18 0 0</td>
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<td>20 Throwers and doublers</td>
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<td>25 Weavers and attendance</td>
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<td><strong>302</strong></td>
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Defoe estimated 120,000 people in and around the city employed in worsted in 1724. Young estimated 72,000 in 1770.
Norwich organisation and marketing

- Grew from medieval guilds. Master craftsmen had to be freemen of city.
- 1650 Parliamentary ordinance established Norwich Corporation to regulate standards of stuff trade
- Weaving more concentrated in Norwich by late 17c
- Late 17c, most stuff sent for sale to Blackwell Hall, London, by sea

- Mid-18c, around 30 manufacturers dominated Norwich stuff trade
- Wages fixed by consultation between masters
- Made high-end product to order from merchants, mainly on putting-out basis
- Wide product range, changed frequently with fashions
Decline of Norwich

- Output increased threefold 1700-1770 (Young – possible overestimate)
- Highpoint of Norwich production 1740-60
- Began to decline before impact of Yorkshire mechanisation felt
- Exports of stuffs declined after 1775

WHY?
- Competition from cotton and fustian
- End of protection against cotton weaving and printing in 1774
- Rise of Yorkshire, undercut low-end worsted trade
- Problematic business and marketing model
The rise of Yorkshire

- Traditional artisan woollen manufacture around Leeds, mainly lower-quality kerseys
- Worsted manufacture spread around Halifax and Bradford from early 18th century
- Cheaper, lower quality products, e.g. tammy, shalloon, medium-quality calamanco, serge
- By 1770s, Yorkshire outstripped Norwich production
Organisation of Yorkshire woollen industry

- Mainly artisan structure
- Master-manufacturers mainly small
- Part-time farmers growing food for family subsistence
- Typically owned 6-10 acres land
- Production at home, might employ a few journeymen
- Sent to fulling mill
- Sold dyed or undyed at cloth market
- Gentleman merchants organised finishing

Source: Randall, 1989
Markets

- Rural clothiers brought their cloths to weekly markets at Leeds and Huddersfield.
- Defoe described the Leeds market in the High Street.
- Wakefield erected a cloth hall in 1710, Leeds followed suit.
Marketing

1720s merchants sold cloth:

- For ‘the ordinary dress of the people’ sent commercial travelers with pack-horses to fairs and markets throughout England, selling wholesale to shops
- By commission from London merchants, or give commission to London factors to sell for them
- By commission from foreign merchants. Exported from Hull via the Aire and Calder Navigation
- From mid-18th century, some manufacturers bypasses cloth halls and made to order for merchants

*Wider range of marketing routes than West Country or Norwich*
Organisation of the Yorkshire worsted industry

- Small group of master weavers or merchant capitalists put out work to rural industrial proletariat of combers, spinners, and weavers with little or no land
- Small manufacturers on poor upland holdings lost independence with downturn of kersey trade in 1750s, became out-workers for capitalist worsted manufacturers
- Did not use apprenticeship
- Spinning put out to cottages over a wide area including all of Yorkshire, north Lancashire, Durham, Westmorland, Derbyshire and Cheshire
- Putting-out to spinners sometimes sub-contracted to local shopkeepers
- A good spinner working from Monday to Saturday might earn 2s 6d a week
- Dyeing and finishing in town workshops run by master finishers employing waged labour
- Large capital needed due to slow turnover and to hold stocks for changing demand
Why was Yorkshire more successful?

- Served mass market, undercut Norwich on standard worsted stuffs
- More active marketing at home and abroad
- Better industrial relations in woollen industry, greater opportunity to become a master
Summary

Wool textile industries grew overall from 1700-1780, but experienced an intensification from variable export markets, changing tastes and competition from cotton.

**West Country:**
- Occupied a niche market for super-fine broadcloth.
- Slow capital turnover, little scope for market expansion or innovation.
- Area contracted due to competition from new draperies
- Putting-out system, marketing by London factors and merchants

**Norwich:**
- Dramatic rise of new draperies in 17th century
- Largely putting-out system, but master combers controlled spinning
- Rapid innovation, made to order, increasingly dependent on exports
- At risk from loss of foreign markets and competition from cotton
- Began to decline after 1740-60

**Yorkshire:**
- Grew rapidly to overtake Norwich by 1770. Served mass market
- Artisan structure in woollens, putting-out system in worsteds
- Yorkshire merchants important in developing new domestic and overseas markets
Prep for Week 4B, The wool industries after 1780

Discussion topic: How did developments in the cotton industry affect woollen and worsted manufacture?

Prep for Week 5, Other textiles

Discussion topics:
- What was the organisation of the hand knitting and/or the framework knitting industry?
- How does this compare to the proto-industrial model?
- How did the framework knitting industry develop in the nineteenth century in the face of factory mechanisation?
Wool industries after 1780

Shorter Reading
- Lloyd Prichard, M. F., ‘The decline of Norwich’, *Economic History Review* 3 (3) (1951). Online via Conted. Library or Student Resources room, Google drive. 2 class copies.

Longer reading
- Smail, J., *Merchants, Markets and Manufacture: The English Wool Textile Industry in the Eighteenth Century* Ch. 8. 2 class copies.
- Sugden, K., ‘Clapham revisited: the decline of the Norwich worsted industry (c. 1700-1820)’, *Continuity and Change* 33 (2018). In Conted. Library, Google drive, 2 class copies.

Knitting

Hand knitting

Framework knitting