
*From Monopoly to Laissez-faire: The Early Growth of the Wupper Valley Textile Trades**

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The Bergish territories' secular dynamic and the Wupper Valley's industrial advance suggest an *ambiance sociale* favoring economic growth. In this context, the proximity of Cologne assumes considerable importance. Without doubt, it remains one of Cologne's main contributions to post-medieval progress that as the region's oldest conurbation Cologne had assumed the guardianship over a civilization which, at the proper historic moment, it generously diffused throughout the Rhineland.¹

Of itself, the Rhine metropolis lacked the requisite flexibility to adjust to the realignments which the newly emerging, modern world had imposed upon the international economy. Such a state of ossification was quite common at the time, afflicting many of the urban centers boasting an ancient tradition. A diagnosis of the social malaise is somewhat easily rendered for all pathological

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¹ BRUNO KUSKE, *Die Grundzüge der Wirtschaftsentwicklung am Niederrhein vom Mittelalter bis zur Gegenwart*, «Annalen des Historischen Vereins für den Niederrhein», vol. 115 (1929), pp. 45-48; WILH. SCHUMACHER, *Untersuchung über die Entwicklung der bergischen Seidenindustrie* (Heidelberg: Rössler and Herbert, 1914), p. 7.

symptoms point to the inflexibility of a corporate structure. Even though a resolute minority of burghers relentlessly pressed for reform, they were unable to dislodge this authority.²

But like Hood waters held back in their regular bed, Cologne's progressive elements sought new ways to assert their force. Consequently, they rushed forth over the city walls in order to galvanize the inhabitants of an unencumbered countryside to pursue their aims. The energy thus applied was an amalgam of what proved best in the industrial tradition of the Middle Ages, revitalized and purified by the pressure of the reformist groups trying to subvert an outdated guild system by outflanking it.

The impact of these wholesome influences, flowing from town into countryside, was most effective where the rural population was brought face to face with the « rationalism » of an intricate network of long-distance commerce. This was particularly true in parishes adjoining the city gates, in villages along the main highways and those strung along the Rhine. This was due to Cologne's special position as important « staple ». During the Middle Ages and throughout much of the early modern period, the Imperial city was a nodal point for both North-South and East-West trade. Men and material moved continuously along these main roads leading in and out of town. As a result, country folk placed in direct contact with this traffic could not avoid being absorbed in the activities of this cosmopolitan exchange.³

The parish of Wermelskirchen is typical of this activity. « Created on the ridge of a Hansa transport artery, leading from Flanders to Lübeck, and adjacent to the Hansa towns of Cologne, Lennep, Wipperfürth, Radevormwald, Solingen and... Burg », the inhabitants of this parish became haulage men as early as the 14th century. « Their wagons », according to one historian, « tra-

² ELLI OBERBACH, *Das Kölner Textilgewerbe von der Wende des Mittelalters bis zum 19. Jahrhundert* (Cologne: M. Welzel, 1929), pp. 122 ff.

³ That trade between Cologne and the Berg area was active in the early modern period has been suggested by R. ISENBURG, *Untersuchungen über die Entwicklung der bergischen Wollenindustrie* (Heidelberg 1906), Diss. Heidelberg University, p. 6 and EMERTRUDE VON RANKE, *Kölns binnendentscher Handel im 16. und 17. Jahrhundert*, « Hansische Geschichtsblätter », vol. 49 (1924), pp. 64-77.

versed the world... ».⁴ Rather revealingly, in the 15th century some of the local youths already attended Cologne University.⁵

Cologne's demand for foodstuffs and raw materials was another factor contributing to a profound and widespread transformation of this region. The change came about by the specific pressures exerted by metropolitan purchasing power upon peasants who were drawn into the market economy. This meant that they came to practice a more specialized type of agriculture, rendering obsolete such traditional ties to their neighbors as might have thwarted individual initiative.⁶ In short, however primitive, these husbandmen became entrepreneurs. As they became part of the cash nexus, they helped to accelerate a trend towards the commutation of seignorial dues into money rents. Thus the feudal bonds which had been partly eroded in the Rhineland during the Middle Ages were further weakened. These pressures were never to be reimposed, thus creating a state of affairs of momentous historic consequence for the subsequent development of this part of the world.⁷

Finally, there was the deviant guild member who could not find the necessary elbow room for industrial or commercial innovations within his urban habitat. He chafed under the limitations imposed upon him by the corporate order, and increasingly sought ways to break out of it. By leaving Cologne, he usually gained his freedom. This was achieved either of his own volition or by being compelled, after some altercation with authorities, to try his luck in the

⁴ HELMUT VON STEIN, *Die Industrielle Entwicklung der Stadt Wermelskirchen seit Anfang des neunzehnten Jahrhunderts* (Düsseldorf: G.H. Nolte, 1939), p. 1.

⁵ *Idem.*

⁶ G. VON GÜLICH, *Geschichtliche Darstellung des Handels, der Gewerbe und des Ackerbaus der bedeutendsten handel treibenden Staaten unserer Zeit* (Jena: Friedrich Fromman, 1830), vol. 2, p. 163.

⁷ The weakening of the feudal order as a result of market pressures has been elaborated by FRANCOIS LOUIS GANSHOF and ADRIAN VERHULST: « This collective economy was replaced by a system of agrarian individualism with stock-raising on natural pastures as the chief resource. This basic change in the system of cultivation, particularly noticeable in Flanders during the thirteenth century, was without doubt stimulated by a more active trade in meat, wool, and leather, mainly in the neighborhood of the great cities ». *Medieval Agrarian Society in its Prime*, « Cambridge Economic History », vol. 1, part I. *The Agrarian Life of the Middle Ages*, edited by M.M. Postan (Cambridge: The University Press, 1966), 2nd ed., p. 298.

countryside. Thus, by moving from the city, he became the pioneer of rural industry.⁸

The inflow of men and ideas did not spark automatic growth in the backwood area. Indeed, success of such a transplantation, (from ancient civilization to as yet «unindustrialized» territory) is never a foregone conclusion. It depends primarily upon the congruence of special sets of circumstances. That these conditions were essentially realized in the Wupper valley must be attributed to its propitious environment. Specifically, an agrarian structure had emerged in this area and with it a special setting in which the dominant peasantry was already poised to move ahead. Accordingly, this peasantry knew how to make the most of exogenous stimulants. Cologne's example of prodding and pressure only hastened what in effect amounted to an established trend.⁹

Since this upward surge was conditioned by the agrarian context, the pattern of rural evolution assumed special importance. Already the beginning of colonization augured auspiciously for the area's subsequent dynamic because the lords, in whom the Berg lands were originally vested, lacked the necessary manpower to work their estates. Therefore, they could only attract colonists by offering them generous terms of settlement. This meant favorable conditions with respect to land tenure and serf status for newcomers. These circumstances were largely instrumental in projecting Berg feudalism on its characteristically mild and lenient course.¹⁰

This emerging tolerant and liberal relationship between master and serf generated its own momentum. Especially the irruption of the cash nexus prompted the advantageously placed peasant to improve his position still further. Eventually, the local serf became

⁸ G. VON GÜLICH, *Geschichtliche Darstellung des Handels*, vol. 2, p. 183.

⁹ For an expert discussion of the Berg agrarian structure, see FRANZ STEINBACH, *Beiträge zur bergischen Agrargeschichte - Rheinisches Archiv*. (Editors, Herman Aubin and Theodor Frings). (Bonn and Leipzig: Kurt Schroeder, 1922), vol. 1, esp. pp. 55-61.

¹⁰ Dr. J. F. KNAPP, *Geschichte, Statistik und Topographie der Städte Elberfeld und Barmen im Wuppertale. Mit Bezugnahme auf die Stadt Solingen und einige Städte des Kreises Lennep*. (Iserlohn and Barmen: Wilh. Langewiesche, 1835), pp. 43-44 and HERMANN RINGEL, *Bedingungen der Wirtschaftsentwicklung im Bergischen Lande bis zum Beginn des 19. Jahrhunderts*. (Unpublished dissertation, Cologne University, 1922), pp. 5-7.

a kind of hereditary tenant and *de facto* was indistinguishable from the freeholders who bordered these lordly estates. As a group, the two categories of tenant and yeoman constituted an *élite* that was set apart from the cotters who had to content themselves with a more modest existence.¹¹

These larger peasants lived on dispersed holdings and practiced dairy farming, cattle raising and the merchandising of timber. This diversity was in response to Cologne's massive demand for food and raw materials.¹² Thus the nature of their social existence set the stage for the Berg husbandmen to develop a sense of rugged independence.¹³ In turn, these traits intensified and broadened their entrepreneurial instincts. Soon, the emerging «*Kulaks*» were to raise their sights beyond the agrarian sector. In this way, they hoped to make the most of the opportunities that arose from an inter-regional trade (mostly linen), that passed through the area.¹⁴

Before long, the Wupper valley merchant-cultivators were called upon to prove themselves capable of facing risks — a challenge inherent in international business. Beginning with the 15th century, the dominant trade pattern was in the midst of change. Until then, most of the manufactured linen had been shipped from South German cities via Cologne to the Netherlands and from there to Spain. In the future, this network was to be replaced by a new

¹¹ Id. and Dr. GERT VON EYNERN, *Die Unternehmungen der Familie von Rath* (Bonn: Kurt Schroeder, 1930), pp. 4-5.

¹² «*Arable conditions*», writes no less an authority than JOAN THIRSK, «*did not usually give warm hospitality to domestic crafts...*», see Chapter 1, *The Farming Regions of England*, in «*The Agrarian History of England and Wales*», vol. IV, editor H. P. R. Finberg, vol. IV (Cambridge: The University Press, 1967), p. 45. As regards the Wupper valley scene, see H. F. MACCO, *Geschichte der Familie Wuppermann* (Berlin: n. p., 1911), p. 3 and JOH. VIKTOR BREDT, *Studien zur Rechtsgeschichte von Barmen*, «*Zeitschrift des Bergischen Geschichtsvereins*», vol. 65 (1937), p. 15.

¹³ See HERMANN RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 7-9 and JOHANN VIKTOR BREDT, *Barmen im 15. Jahrhundert*, in the «*Monatsschrift des Bergischen Geschichtsvereins*», vol. 6, June 1899, p. 117.

¹⁴ For a general evaluation of the large city's demand upon the neighboring agriculture, see L. GANSHOF, *Medieval Agrarian Society in its Prime*, p. 339. Regarding the agrarian and especially «*Kulak*» origins of Wupper valley bleaching, see the standard account by JOHANN VIKTOR BREDT, *Die Lohnindustrie dargestellt an der Garn- und Textilindustrie von Barmen* (Berlin: von Bruer, 1905), pp. 14-15 and pp. 20-21.

relationship in which the Dutch bleachers came to rely on brown linen that originated in Northern Germany.¹⁵

Such secular realignments caused distress among the erstwhile producers. Cologne was similarly hard-pressed. Having previously been a strategic transit center in the old exchange, it was to be increasingly by-passed during the new era. Wupper valley commercial activity adjusted to the altered scene with remarkable dispatch. Though originally very much part of the medieval order and a satellite of Cologne, local industry managed most adroitly to sunder its traditional ties to the Imperial City.¹⁶ Alternatively, it sought integration into the regional economy of the Dutch Lowlands, which was then in the process of emergence. Success along these lines was assured because the indigenous operators had learned how to satisfy the growing demand for linen and linen yarn. The prospering cities of Brabant and later those along the Netherland coast became steady customers. These areas were emerging as the focal points of the world economy.¹⁷

This would suggest that the Wupper valley merchants had attached themselves to rising stars. But superficial appearances notwithstanding, they had not simply chanced upon this course. Rather, they seem to have been steered by the good luck the Heavens repeatedly shower upon those helmsmen with the knack for life-manship. Indeed the wise choice of the Wupper valley's commercial reorientation towards Flanders, Brabant and eventually towards the Dutch centers, had been predicated upon the area's receptivity towards industrial innovation.¹⁸

Despite its industrial malaise, activity from Cologne offered the most immediate stimulus.¹⁹ The Wupper valley linen merchants

¹⁵ HERMANN VAN DER WEE, *The Growth of the Antwerp Market and the European Economy* (fourteenth to sixteenth centuries), (The Hague: Martinus Nijhoff, 1963), vol. II: Interpretation, pp. 24-26 and especially Chapter III.

¹⁶ H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 55.

¹⁷ For an expert summary of these developments, see WALTER DIETZ, *Die Wupper-taler Garnnahrung - Geschichte der Industrie und des Handels von Elberfeld und Barmen, 1400 bis 1801 - Bergische Forschungen*, vol. IV, Editor Edmund Strutz (Neustadt an der Aisch: P.L.C.W. Schmidt, 1957), pp. 13-15.

¹⁸ J. V. BREDT, *Die Lohnindustrie*, p. 21.

¹⁹ For emphasis on Cologne influence as an important factor in promoting Wupper

assumed the role of principal agents, since they were in a position to take full advantage of this situation. They did so with a vengeance. In the course of their commercial dealings, they visited the Imperial city regularly and consequently had first-hand experiences with the difficulties facing corporate industry, bleaching included. Perhaps it was by way of contrast that the peripatetic traders realized the industrial potential that was inherent in the freedom and frontier atmosphere of their native habitat. In any event, they took the initiative. With their expertise and some accumulated resources, they began to transform local bleaching. They transferred what had been a purely subsistence endeavor into a commercial venture destined for export. It was not the heroic figure of Göddert Wichehlaus, as legend would have it, but the prosaic sequence of entrepreneurial expectations that sparked the industry which for more than two centuries was to provide the foundation of the Wupper valley's spectacular progress.²⁰

During the 15th century, the first bleaching firms were established here and a definite pattern began to emerge. Moving eastwards from the parish of Elberfeld towards the future Barmen, the meadows along the Wupper were increasingly transformed into bleachgreens.

By the end of the century, the Valley's inhabitants were linked, for better or worse, to the fortunes of this particular trade.²¹ How far this development had progressed can be deduced from a census of holdings taken in 1466; the so-called *Beyenburger Amtarechnung*. This census shows that the fragmentation of holdings had been going on for some time and could have not been able to take place without non-agricultural activity providing a least some support.²²

valley bleaching, see EDMUND STRUTZ, *Bergische Wirtschaftsgeschichte*, in JUSTUS HAHAGEN et al, «Bergische Geschichte» (Remscheid-Lennep: Ad. Mann, 1958), esp. pp. 321-322.

²⁰ J. V. BREDT, *Die Lohnindustrie*, pp. 14-15, p. 21.

²¹ J. F. KNAPP, *Geschichte, Statistik und Topographie*, pp. 133-134 and E. STRUTZ, *Bergische Wirtschaftsgeschichte*, p. 322 and GUSTAV VON GÜLICH, *Geschichtliche Darstellung des Handels*, vol. II, pp. 185-186 fn: Note the emphasis upon nearby Werden and Essen as earlier sites of yarn bleaching, providing the Wupper valley with an example worthy of imitation.

²² *Industrie - und Handelskammer Wuppertal 1931-1956* (Wuppertal-Elberfeld: Chamber of Commerce, 1956), p. 9 and J. V. BREDT, *Studien zur Rechtsgeschichte von*

The speed with which such industrial progress had taken place must be viewed in the context of a broader movement. Fifteenth century trade and industry may not have experienced spectacular expansion. However, production was being subjected to structural changes, generally of a fundamental nature. Industrial output in the countryside and in the newer towns, unencumbered by tradition, gained at the expense of activity in the older ones. This was as evident in the lower Rhine region as it was in Saxony and in the then flourishing districts of Flanders and Brabant.²³

Moreover, the 15th century (especially the second half), witnessed an increase in the class of rich burghers throughout Western Europe. Consumption emanating from this group rose accordingly and the demand for linen, particularly finer linen, enjoyed a secular boom.²⁴ Therefore, it may be said that the Wupper valley had opted not only for what was about to be the most vital mode of production, but also for an activity which was about to become a growth sector.²⁵

In addition to the availability of water and the advantages of a decent road connection, the Wupper valley inhabitants benefitted, on several historic occasions, from a relatively tolerant government. This was certainly true in the 13th century when the local counts were intent upon colonizing this territory.²⁶ Similarly in the

Barmen, p. 47 shows that the increased fragmentation of holdings had reached the figure of 491 by 1591.

²³ For developments in Saxony, see GERHARD HEITZ, *Ländliche Produktion in Sachsen 1470-1555* (Deutsche Akademie der Wissenschaft - Schriften des Instituts für Geschichte - Landesgeschichte), vol. IV (Berlin: Akademie Verlag, 1961), p. 17. For Flanders and Brabant, see H. VAN DER WEE, *The Growth of the Antwerp Market*, pp. 70 ff. and M. VAN WERWEKE, *The Low Countries*, in «The Cambridge Economic History of Europe», vol. III, *Economic Organization and Policies in the Middle Ages*, edited by M. M. Postan, E. E. Rich and Edward Miller (Cambridge: University Press, 1963), pp. 354-356. Also ETIENNE SARBÉ, *De Belgische Vlasnijverheid - De Zuidnederlandische Vlasnijverheid to Het Verdrag van Utrecht (1713)* (Bruges: «de Tempel», 1943), pp. 140 ff.

²⁴ C. M. CIPOLLA, *The Italian and the Iberian Peninsulas*, in the «Cambridge Economic History», vol. III, pp. 419-420.

²⁵ ALEX J. WARDEN, *The Linen Trade - Ancient and Modern*, 3rd impr. (London: Frank Cass and Co., 1967), pp. 289-291.

²⁶ See W. DIETZ, *Die Wuppertaler Garnabnung*, pp. 20-21 and pp. 30-32; at the time «Elberfeld merchants» referred to all those hailing from the Wupper valley. According to J. V. BREDT, *Studien zur Rechtsgeschichte von Barman*, p. 15, the local Protestants were excluded from appointments in the Duke's civil service, a factor which supposedly intensified their preoccupation with mercantile activities.

15th century, the Dukes of Berg demonstrated definite concern for the material welfare of their subjects. They rose to defend local commerce against the ire of Cologne merchants who viewed these « Elberfeld merchants » as illegitimate interlopers. But apart from such sporadic aid, probably proffered at the specific behest of the business community, the local potentates remained conspicuously aloof from economic issues. Thus, in one way or another, local industry was to move ahead according to its own lights.²⁷

II.

Since the late 15th century, Elberfeld figured more frequently in the extant annals of the famous markets and fairs. During the early 16th century, references of this kind became even more numerous. Such prominence was due, in part, to more assiduous bookkeeping, but mostly to a general insistence upon written records. Given the circumstances, one might also infer that the more voluminous supply of historic information concerning the area reflected the Wupper valley's growing reputation as a manufacturing and trading center.²⁸

According to a Cologne document of 1486, Wennemar Teschenmacher, who almost certainly hailed from Elberfeld, was a dealer in linen yarn.²⁹ Along similar lines, a 1504 account indicates that two Cologne burghers were having linen bleached by Elberfeld establishments.³⁰ Even more significantly, in the late 15th century, Berg merchants were reported selling wares in Antwerp. This particular evidence is crucial as it tends to corroborate the aforementioned supposition that the Wupper valley (akin to other fortunate areas of the Lower Rhine region), was being commercially absorbed

²⁷ W. DIETZ, *Die Wuppertaler Garnnahrung*, cit.

²⁸ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 19-20.

²⁹ *Idem.*

³⁰ W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 12.

into both the Antwerp hinterland and into Flanders.³¹ The latter province had by then become the focal point for the « new » international economy, with the Atlantic as the center of gravity and with linen assuming a pivotal role in the world's textile business.

By 1527, Wupper valley activity had reached a milestone in its development. In that year the local bleachers and yarn dealers demanded and were granted the *Garnnahrung* with all its privileges. The fee for this major concession was 861 Goldthaler.³² The merchants were able to raise this sum promptly and in turn the authorities acted with equal dispatch and apparent sympathy upon their request for special treatment. This shows the influence Wupper valley industry and its immediate representatives had come to exert within the Duchy.

At the same time, the official attitude suggests that the potentates were intent upon capturing for their benefit, as it were, the dynamic of this trade. They hoped that the rules to be enforced by the new order would bolster the various phases of the linen business and thereby enlarge the tax base of the realm.³³ The ducal charter establishing the *Garnnahrung* is a significant document. By implication it provides the earliest available account of linen yarn bleaching in the Wupper valley, including hints bearing upon a social anatomy of the environment.³⁴ Traditionally, local historiography has been appropriately alive to the importance of this ancient record and has therefore not only submitted the *modus operandi* of the projected institution to careful scrutiny but has even gone as far as to date the beginning of modern Wupper valley history from the implementation of this regulatory system.³⁵

³¹ J. V. BREDT, *Die Lohnindustrie*, pp. 15-16.

³² E. STRUTZ, *Bergische Wirtschaftsgeschichte*, p. 321 and G. V. EYERN, *Die Unternehmungen der Familie von Rath*, p. 14. Dietz emphasizes contrary to all other authors that the fee paid by the bleachers and their yarn dealers was not really as large as some of the other historians have maintained, *Die Wuppertaler Garnnahrung*, p. 28.

³³ W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 30.

³⁴ The actual document of the *Garnnahrung* is no longer available. The closest reproduction of the original text (in Middle High German) is offered in « Urkunden zur Geschichte der Garnnahrung im Wuppertal », edited by W. Creelius and A. Werth, « Zeitschrift des Bergischen Geschichtsvereins », vol. 16 (1880), part. I, pp. 76-81; part II is in the same journal, vol. 17 (1881).

³⁵ Rather typical, as far as older accounts are concerned, see the comments by two 19th century officials: W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topo-*

Henceforth, only members of the *Garnnabrung* in the *Freiheit* of Elberfeld and the as yet unincorporated locality of «Barmen» were to enjoy, within the Duchies of Jülich and Berg, the right to «bleach and thread linen yarn for commercial purposes». In this way the Duke compensated them «for their recent difficulties, losses and troubles sustained...». To the disappointment of those concerned with developments prior to 1527, these problems are not elaborated. Nor, incidentally, are those places mentioned (presumably Schwelm and Werden) which were to be detrimentally affected by this monopolistic legislation.³⁶

This privileged group was to be governed and administered by four trustees, later referred to as *Garnmeister*. These comprised two each for the two communities, selected annually by the members of their corporation in conjunction with and under the supervision of the ducal officials; the so-called *Amtmänner*. Moreover, the *Amtmänner* were to constitute the highest court of appeal and arbitration in all matters affecting disputes and altercations within the *Garnnabrung* which the trustees were not able to mediate. For rendering these services, the six officials: i.e. the *Amtmänner* and the *Garnmeister*, were to be paid a percentage share of total output.³⁷

Prospective members of the *Garnnabrung* had to swear on oath that they would not transplant linen bleaching into other lands nor aid and abet in such undertakings. Provided they adhered to these rules, even incoming foreigners were readily accepted into the *Garnnabrung* on paying the entrance fee of four *Gulden*, a sum which was eight times the amount (1/2 *Gulden*) demanded from native members. However, servants and maids (*Bleicher Knechte* and *Mägde*) were explicitly excluded from membership in the *Garnnabrung* until such time when «because of their own trading and bleaching they would benefit by joining it».³⁸

graphischer und statistischer Beziehung von seiner Entstehung bis zum Jahre 1841 (Barmen: Friedrich Staats, 1841), p. 9. For a modern view see WOLFGANG KÖLLMAN, *Wirtschaft, Weltanschauung und Gesellschaft in der Geschichte des Wuppertals* (Wuppertal: Abendland Verlag, 1955), pp. 7-13.

³⁶ According to H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 41, an accord was signed with the inhabitants of Schwelm, permitting the latter to bleach 2000 pieces of yarn.

³⁷ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 30-33.

³⁸ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 23-25.

Output was to be limited to 100 pieces (à 8 lbs-annually) of bleached linen yarn per dealer. Bleachers were limited to 800 pieces while those bleaching and selling their own yarn to 600. Exemptions were to be made in the case of members' children residing abroad. Depending upon circumstances, the trustees were to grant these dependents the privilege of additional quantities. Also, in times of depression, the ducal officials were empowered to reduce the various allotments, on a proportional basis, in response to declining demand.³⁹

A medieval conception of a static society sustained this policy of restrictions. Most traders, artisans and administrators at the time subscribed to corporate ideals regarding a stable, and above all, an egalitarian income for all concerned. Fears that an individual, if unbridled, might increase production and business generally at the expense of his colleagues and in turn subject them to his power were widespread.⁴⁰ Similarly, the need for limits on individual production was universally accepted. Besides, an awareness, given these egalitarian considerations, that returns as between the various branches of the linen yarn trade differed, prompted the allocation of differential quotas.⁴¹ In this connection it is worth observing that these viewpoints endowed, at so early a stage, the Bergish merchants and bureaucrats with a rather precocious perception that for all the apparent differences that had to be taken into account, profits, rent and interest were but « species of a large genus ».

Moreover, Garnnahrung regulations specifying the period allowed for bleaching, March 23rd to May 15th, were very much part of the overall effort to erect a bulwark against forces threatening the *status quo*. By having set these dates, no one was supposed to disadvantage his fellow members through premature sales and thus

³⁹ ID. and WILHELM LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt des Wupperthals nebst besonderer Darstellung ihrer Industrie, einem Überblick der Bergischen Landesgeschichte...* (Barmen: W. Langewiesche, 1863), p. 128. At the time the number of Wupper valley inhabitants had supposedly reached one thousand.

⁴⁰ H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 39-40.

⁴¹ W. DIERZ, *Die Wuppertaler Garnnahrung*, pp. 34-35 and p. 49. It is worth noting that the initial statutes of the *Garnnahrung* prohibited the use of the thread mill. Later on the ban was to be ignored; during the 17th century the thread mill was universally used.

spoil the market. Nor was speed in production at the expense of quality to jeopardize (given these calendar limits) the reputation of local wares.⁴²

Finally, there were the statutes prohibiting traders and bleachers from working with borrowed capital. These interdictions suggest dark forebodings on the part of contemporaries that loans and interest were sinister elements subversive of the existing order. But, here as elsewhere, almost from the day of their promulgation, the rules against usury and business concentration were honored in the breach.

On the basis of surviving records, Dietz provides telling examples illuminating the subterfuges and loopholes which enabled Wupper valley's emergent capitalism to bypass the medieval obstacles hindering its expansion. The scheme was quite simple: local inhabitants with available savings were to place these funds at the disposal of local traders, with the specific request that these dealers buy, bleach and sell the yarn on their behalf. These mini-capitalists never saw the raw material nor were they, at any stage, involved in its movement. Nor, for that matter, were they concerned to have the loans repaid on completion of the individual transaction. This meant that the aggregate of these small sums contributed a revolving fund of appreciable size, which augmented on a permanent basis the resources and the permissible output of the entrepreneurial élite.⁴³

These petty lenders insisted, however, upon a fairly stable return on their credit outstanding. For the most part they were to be satisfied on this account and thus, as Dietz points out, the foundations had been laid for the rudimentary workings of a joint stock company with limited liability, issuing, as it were, bonds and preferred stock.⁴⁴ At this stage of early modern history blood relationships and group ties based on religious affiliation were the

⁴² W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 35-36.

⁴³ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 36-37 and pp. 54 ff.

⁴⁴ W. DIETZ, *Die Wuppertaler Garnnabrung*, esp. the tables on p. 55. That this credit pattern was quite widespread in the early days of European capitalism has been emphasized by GEORGE V. TAYLOR, *Types of Capitalism in Eighteenth-Century France*. « English Historical Review », vol. LXXIX (1964), p. 485.

prime ingredients cementing the framework within which this limited capital market was to operate.⁴⁵

By eroding many of these original statutes, the march of progress contributed to the resilience of the *Garnnabrung*. Such a sequence of events may seem paradoxical, though on second proves to be quite straightforward. All that this particular pattern suggests is the truism about an institution proving its viability by jettisoning, easily and willingly, those of its rules and regulations which have outlived their utility. Because the *Garnnabrung* had demonstrated its flexibility and particularly its power of rejuvenation, it was able to continue to lay claim upon Wupper valley leadership.⁴⁶ Stripped of unnecessary paraphernalia, the *Garnnabrung* was to concentrate upon the essentials of control and thus shape the course of local development for centuries to come.

This, of course, raises the question as to the nature and meaning of the *Garnnabrung*. It could never have been a monopoly of the orthodox kind because, from the beginning, the size of Duchy of Berg made exports all important. However, « Elberfeld yarn », as it was then called, probably enjoyed a certain uniqueness and appears to have been sold in a few markets among which Cologne remained an important outlet. Thus, in the short run at least, it is safe to assume that the demand elasticity for local yarn was low and that as a consequence efforts to limit quantity and thereby maintain prices, especially in periods of decline, were not in vain.⁴⁷ Indeed, concern over orderly conditions in this primarily internat-

⁴⁵ All the members of the *Garnnabrung* were members of the Reformed Lutheran Church. During the late 16th century they were exposed to pressures and inconveniences which presumably enhanced, as a group, their sense of belonging. See W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, p. 13-14. Also see W. KÖLLMANN, *Wirtschaft, Weltanschauung und Gesellschaft*, p. 21 and pp. 41-42.

⁴⁶ The *Garnnabrung's* flexibility, its ability to roll with the punches meted out by the world economy has been emphasized by W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 34-38. At the time the vitality and resilience of the bleaching industry was enhanced by virtue of its close ties to agricultural activity.

⁴⁷ The main sales outlets for bleached yarn were Cologne, Frankfurt a.M. and Antwerp. When in 1540 an Antwerp merchant declared bankruptcy, all twenty of his German creditors were bleachers and traders residing in the Wupper valley. E. STRUTZ, *Bergische Wirtschaftsgeschichte*, pp. 340-341.

ional market, particularly when a slump threatened, may have been the basic reason for the establishment of the *Garnnabrung*, as fore-mentioned references within the charter to difficulties and losses prior to 1527 would indicate.⁴⁸

16th century merchants and officials did not and probably could not as yet appreciate the distinction between short and long term influences upon prices. Imperfections in the market structure shielded, as it were, the participants in the international economy from the potentially inexorable discipline exerted by the forces of supply and demand. Such a state of affairs provides at least a partial explanation for the complete faith and trust of these contemporaries in economic controls. The men of those days approved in large measure an order where industrial activity was limited to one area in the state and within that particular district to a select number of producers with a given output. They were certain that the country-at-large would gain from a system of carefully supervised production. Above all, they believed that within such a framework the entrepreneur would be spurred on to give his best, because he would be protected against interlopers imitating his efforts, stealing his trade secrets and, worst of all, spoiling the market for his goods.⁴⁹

All this smacks of a cartel arrangement as the somewhat heterogeneous though privileged membership was allotted a share of a total output that had been set with due regard to market conditions. In view of these circumstances, the *Garnnabrung* was subject to those pressures to which a cartel is typically exposed when facing a cyclical and especially a secular boom. In period of advance, the more aggressive members of a cartel, scenting additional profits to be made by prompt adjustment to the upward shift in demand, were bound to break the prescribed rules: they were willing to enlarge individual output beyond their assigned quota.⁵⁰

It is usually accepted that the 16th century was expansion

⁴⁸ W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 26.

⁴⁹ See especially J. A. SCHUMPETER, *History of Economic Analysis* (New York: Oxford University Press, 1955), pp. 151-153. As regards local advantages to be derived from the monopoly, see W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt...*, pp. 266.

⁵⁰ W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 21 and H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 41.

oriented, especially during its second half.⁵¹ The Western World at that time was in the process of digesting and consolidating the commercial gains resulting from those spectacular overseas discoveries.⁵² The linen yarn trade, in particular, prospered because of the almost infinite demand for linen thread needed in the flourishing Flanders and French lace making industries.⁵³

The growth of Wupper valley output reflects the overall, long period upswing in textiles. Dietz estimates that during the early 16th century about 3200 pieces of bleached yarn were produced annually by 44 operators. Not quite a century later, in 1606, the output had risen to as much as 5000 pieces, the work of some 33 bleachers in Elberfeld and 77 bleachers in Barmen. The increase in the number of Barmen producers suggest that additional land was still available there to be turned into bleachgreens.⁵⁴

This particular pattern outlines and even anticipates what eventually emerged as a Wupper valley characteristic: Barmen was to concentrate on production while Elberfeld became the area's commercial and financial center.⁵⁵ On scrutinizing production figures of individual members, the economic differences within the *Garnnahrung* were soon conspicuous. Already at this early stage, some of the local merchants had obviously become more equal than others.⁵⁶

This perennial hustle and bustle was to lead to transgressions against *Garnnahrung* regulations as can be gleaned from some extant

⁵¹ «The sixteenth century was an age of economic expansion...» writes H. R. TREVOR-ROPER, *Religion, the Reformation and Social Change* (London: Macmillan, 1967), p. 60.

⁵² See C. H. WILSON, *Trade, Society and the State*, in «Cambridge Economic History of Europe, The Economy of Expanding Europe in the 16th and 17th centuries (editors E. E. Rich and C. H. Wilson), (Cambridge: The University Press, 1967), vol. IV, pp. 490-491, and ETIENNE SABBÉ, *Histoire de l'industrie linière en Belgique* (Brussels: Office de Publicité, 1945), pp. 22-24 on the importance of the Spanish markets.

⁵³ G. VON GÜLICH, *Geschichtliche Darstellung des Handels*, vol. II, pp. 186-187.

⁵⁴ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 26-28 and H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 42.

⁵⁵ KLAUS GOEBEL, *Zuwanderung zwischen Reformation und Franzosenzeit... ein Beitrag zur vorindustriellen Bevölkerungs- und Wirtschaftsgeschichte Wuppertals 1527-1808* (Wuppertal: Born-Verlag, 1966), pp. 43-44 and J. V. BREDY, *Die Lohnindustrie*, p. 21.

⁵⁶ *Idem.* Also see H. RINGEL's comments, *Bedingungen der Wirtschaftsentwicklung*, p. 43 and especially W. DIETZ's list of producers with their quantities of annual output; *Die Wuppertaler Garnnahrung*, pp. 55-62.

decisions against offending members. In 1596, for example, the Elberfeld merchant Caspar Rittershaus was fined 500 Gold Guilders, to be paid to the Duke, plus 400 Thaler, to be surrendered to the *Garnmeister's* treasury, because of serious infractions against the *Gabnnahrung* code. It appears that this early entrepreneur had expanded his output well beyond his permitted quota. As if to add insult to injury, he had permitted the extra amount to be bleached in Schwelm.⁵⁷

This particular incident suggests the affluence of a man like Rittershaus who was not ruined by these exactions. On the contrary, he continued to prosper in sufficient measure to be cast in the historic role of founding father of what was later to become a distinguished local family.⁵⁸ Moreover, this case points to the classic *malaise* regarding members being in violation of *Garnnahrung* regulations. These offenders either had more yarn bleached than they were allowed (notably in Schwelm and Wetter) or they stretched the period of bleaching beyond the permitted dates. In any event, infraction of statutes was the rule rather than the exception.⁵⁹

Such an atmosphere was found to be fraught with conflict and documents from this era are replete with accounts of numerous dissensions. On several occasions the altercations went somewhat further than those merely symptomatic of a society rent by tensions. Indeed, some of the bickerings had a decidedly prophetic quality about them. These conflicts presaged the social realignments and the altered power constellation of a capitalist society that was in the process of emergence.⁶⁰

See from this vantage point, the 1596 dispute between bleachers and merchants assumes historic significance. In that year the Barmen bleachers, threadmakers and ribbonweavers submitted a memoran-

⁵⁷ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 28-29 and pp. 76-77. At that time Rittershaus was Elberfeld's second wealthiest merchant. Also see H. F. MACCO, *Geschichte der Familie Wuppermann*, p. 23 in 1598 Peter Wupperman had been fined one Guilder.

⁵⁸ K. GOEBEL, *Die zuwanderung zwischen Reformation und Franzosenzeit*, p. 43.

⁵⁹ H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 42-43 and W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 66-68.

⁶⁰ J. V. BREDT, *Die Lohnindustrie*, pp. 23-25.

dum to the *Amtmänner* (the Ducal officials), complaining that the Elberfeld and Barmen dealers had decided, with the express permission of the *Garnmeister* and the local justices, to cease the bleaching of yarn within the Wupper valley for the period of one year. Crisis conditions in the world economy and the resulting surfeit of unsold goods were given as the reason for this action. In view of these circumstances, the disadvantaged producers were quick to point out that the merchants themselves were largely responsible for this state of affairs, for in period of boom the latter usually expanded their output beyond the norms set by the *Garnnahrung*.⁶¹

This report also emphasized the misery to which those affected by this restriction were being condemned. The account concluded by warning that in the long run the whole industry might be ruined because of the stoppage, if those 40 bleachyard workers (*Knechte*), now unemployed, were to leave the Barmen area altogether.⁶²

In their reply the *Garnmeister* rejected all allegations of mercantile conspiracy and unseemly haste with which they had been charged. To prove their innocence in the face of these accusations, the *Garnmeister* were at pains to establish that prior to deciding upon a ban on bleaching, they and the supposedly conniving justices had deliberated at length with the elders of the area's trading community. Apart from the substantive points of the argument, which were meant to defend their action and which, in turn, highlighted the drift of economic events, the case presented by the *Garnmeister* also bears upon another aspect of the social scene; the decisive influence the wealthier linen-yarn dealers had come to enjoy within the *Garnnahrung* and thus within the Wupper valley at large.⁶³

It was quite obvious that the *Garnmeister* were overwhelmingly drawn from the élite group of merchants.⁶⁴ Consequently, those formal consultations between the « trustees » and their friends and relatives, advanced in justification of proper forms of decision making, appear decidedly disingenuous. Indeed, one gains the

⁶¹ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 69-72.

⁶² *Idem*.

⁶³ *Idem* and K. GOEBEL, *Die Zuwanderung Zwischen Reformation und Franzosenzeit*, p. 40.

⁶⁴ W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 63.

impression that Wolfgang Köllmann is quite correct in his hypothesis that, almost from the beginning, the *Garnnahrung* was the precursor of a Chamber of Commerce through which the local worthies, sitting on its Board, made their wishes felt on behalf of the business fraternity.⁶⁵ One might on this occasion be equally reminded of George Unwin's somewhat similar observation about England in the 16th and 17th centuries, where rich merchants, upon joining a guild, came to utilize the corporate discipline in order to establish their dominance over the less affluent members.⁶⁶

Given this pattern of evolution, it is not surprising that the ducal authorities should have decided in favor of the *Garnmeister* against the bleachers. The original statutes had clearly authorized the *Garnmeister* to reduce output when periods of depression, such as were to prevail at the time, warranted such action. But it is equally significant that despite its supposed concern for justice the ducal government should have been prepared to overlook these flagrant violations perpetrated by the merchants. Thus, to judge from its posture, one can only surmise that the state was already under pressure to practice a kind of qualified impartiality on behalf of those who manifested both economic muscle as well as ability at organizing an effective lobby.⁶⁷

In turn, these chronic antagonisms between bleachers and linen dealers were responsible for the hostility that bedevilled the relationship between the Wupper valley communities on the one hand and neighboring Schwelm on the other. Throughout the 16th century, quarrels erupted between these localities with almost cyclical regularity. Invariably, yarn illegally traded or bleached in Schwelm was to be the apple of discord.⁶⁸

On one such occasion the ire of Elberfeld merchants was roused and they had Schwelm yarn, while in transit through the valley,

⁶⁵ W. KÖLLMANN, *Wirtschaft, Weltanschauung und Gesellschaft*, p. 12. Also J. V. BREDT, *Die Lohnindustrie*, pp. 17-20.

⁶⁶ GEORGE UNWIN, *Industrial Organization in the 16th and 17th Centuries*, 2nd ed., new impression (London: Frank Cass Co., 1963), especially chapter II.

⁶⁷ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 62-72.

⁶⁸ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 74-77 and W. CRECELIUS and A. WERTH, *Urkunden zur Geschichte der Garnnahrung im Wuppertale*, part I, pp. 82-83 and part II, pp. 11-40.

confiscated. At another time the Schwelm authorities reacted, to what they imagined to be some malpractice directed against them, by incarcerating several Wupper valley merchants visiting their town.⁶⁹ But whatever the proximate reasons for this conflict, one historic lesson stands out: the irrationality of trying to cling to rules which are obviously at variance with the objective circumstances of society. In this particular instance the *Garnnahrung* regulations upholding the Wupper valley monopoly were especially noxious and impracticable since they ran counter to the profit motive of the most dynamic group, the yarn dealers.⁷⁰

Indeed, a policy purporting to stifle Schwelm's activity was virtually impossible to implement.⁷¹ For one, Upper Barmen belonged to the parish of Schwelm, which meant that religious and family ties had forged close bonds between the two communities.⁷² Secondly, apart from social considerations a material factor was of decisive importance. Given Schwelm's rural atmosphere, a lower cost of living and cheaper rents endowed the local bleachers with a competitive advantage over their Wupper valley neighbors.⁷³

This circumstance alone was sufficient reason for the *Garnnahrung* rules to be bypassed. However, while these regulations were actually being ignored (and rather fortunately from the standpoint of the area's secular progress), they were not struck from the statute book. In turn, such a hiatus between an extant law and social reality might have been expected to lead to ever more serious conflict between the contestant groups. But nothing of the kind transpired. Instead, the area settled down to a period of relative quiescence, a state of affairs which can only be understood in the long run context of economic change. Specifically, from now on linen bleaching was losing the local preeminence it had so far enjoyed. And consequently, the preservation of the Wupper

⁶⁹ *Idem* and J. V. BREDT, *Geschichte der Familie Bredt* (Elberfeld. Baedekersche Buchdruckerei, 1902), pp. 13-14.

⁷⁰ *Idem* and H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 41.

⁷¹ In 1614 Schwelm was incorporated into Prussia; henceforth this town was to be free from any interference by the *Garnnahrung*. See K. GOEBEL, *Die zuwanderung zwischen Reformation und Franzosenzeit*.

⁷² W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, pp. 9-11.

⁷³ E. BÖHMER, *Geschichte der Stadt Schwelm* (Schwelm: n. p., 1950), pp. 72-73.

valley's bleaching monopoly, though still important, was no longer to prove the crucial issue it had once been.⁷⁴

It was not as a branch of industrial endeavor sapped of its vitality and lapsing into decline that the bleaching trade surrendered its primacy to newly emerging manufacturing activity. On the contrary, the 17th century was to demonstrate how successful bleaching at its height had been in fashioning a propitious setting which was to provide the « forward linkages » for a new industry. Increasingly, linen weaving and later on the ribbon manufacture became the area's principal sources of employment.

Already in the 1549 agreement Schwelm was specifically accorded the right of linen weaving for its poor who without such by-employment might have been in dire straits.⁷⁵ And half a century later, in the years 1611-1612, the *Garnnbrung* was to receive a *démarche* from its best customers, the Rotterdam and Schiedam weavers, who protested that bed spreads and the like were being produced in the Wupper valley and demanded a cessation of this activity.⁷⁶ Interestingly enough, legend has it that immigrants from the Netherlands were responsible for introducing this particular trade into the Wupper valley.⁷⁷

Be that as it may, subsequently the Dutch weavers warned that they would boycott Wupper valley yarn in the event of non-compliance with their request. Obviously concerned about the dire consequences if such a threat were to be implemented, the Elberfeld *Garnmeister* were eager to placate their clientele by proclaiming not only a ban on local weaving but also an expulsion order against foreign resident associated with this particular business.⁷⁸

However, the Barmen *Garnmeister* were by no means as ready

⁷⁴ W. CRECELIUS and A. WERTH, *Urkunden zur Geschichte der 'Garnnabrung' im Wuppertale*, part III, pp. 11-42; above all, the Elberfeld dealers were involved in these illicit practices.

⁷⁵ E. BÖHMER, *Geschichte der Stadt Schwelm*, p. 73.

⁷⁶ J. V. BREDT, *Die Lohnindustrie*, pp. 46-47.

⁷⁷ W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, p. 73. After all, the new ribbon loom was to be referred to as the « Dutch loom ». See JOSEF KULISCHER, *Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit*, 2nd ed. (Berlin: Rütten and Loening, 1958), pp. 172-173.

⁷⁸ See W. CRECELIUS and A. WERTH, *Urkunden zur Geschichte der Garnnabrung im Wuppertale*, part II, pp. 66-67.

to submit to this form of outside pressure. They dragged their feet about issuing such a prohibition and only acquiesced in Elberfeld's policies of injunction after they had been given to understand that according to law *Garnnabrung* rules were binding upon both communities. The reason why they were so reluctant to follow Elberfeld was simple: in Barmen weaving was already an important source of income, especially for the poorer inhabitants.⁷⁹

During the 17th century, linen weaving and ribbon making spread steadily throughout the Wupper valley and even beyond into the Bergish countryside, despite obstacles of one kind or another put in their way. Their very pattern of growth betokens the resilience of these up and coming trades and simultaneously suggests a social structure of great vitality able to assimilate and spur on these branches of manufacture. Specifically, the historic sequence also points to the elemental energies of an environment where *Kulaks* transformed into merchant-manufacturers still possessed the drive and flexibility to try and make the most of shifts in supply and demand conditions convulsing the world economy.⁸⁰

It was therefore only natural that ambitious operators scanning wider horizons should have been bent upon expanding and diversifying their entrepreneurial efforts by absorbing into their existing operations novel ventures especially suited to make the most of «forward linkages» set up by the sustained development of the old established trades. In view of previous efforts along those lines, the introduction of linen weaving was an obvious move. The manufacture and sale of this particular fabric was to rely not only upon the area's excellent yarn but also upon a host of mercantile arrangements that harked back to the broad based growth pattern of the bleaching industry.⁸¹

⁷⁹ J. V. BREDT, *Die Lohnindustrie*, pp. 46-47; in turn the Dutch weavers promised not to bleach any yarn themselves and to rely exclusively upon Wupper valley supplies.

⁸⁰ That in the early 17th century the Barmen bleachers continued with their agricultural activities has been emphasized by J. V. BREDT, *Geschichte der Familie Bredt*, p. 14. As regards Wupper valley flexibility see W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 39.

⁸¹ J. V. BREDT, *Die Lohnindustrie*, pp. 47-48 and W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt...*, p. 269 and G. VON GÜLICH, *Geschichtliche Darstellung des Handels...*, vol. II, pp. 182-183, p. 202 and p. 268.

In 1605, linen fabrics constituted about five percent of the Wupper valley's export volume and, because of their higher labor content, some fifteen to twenty per cent of the total export value.⁸² Carried along by the boom experienced during the first two decades of the new century, this new manufacturing sector thrived and waxed in local importance. But in spite of these advances, linen never quite achieved a dominant position within the Wupper valley economy during the 17th century. It lacked the basic ingredients for a major spurt. Unlike Haarlem, for instance, with its wide open dunes ideal for the bleaching of the brown fabric, the Wupper valley was far too cramped for space to contemplate the bleaching of woven pieces even though such a process might have been crucial in helping local linen gain international stature. Nor did the Wupper valley industry enjoy any other special advantages with which it might have been able to challenge the supremacy of the old established centers, notably Haarlem and Bielefeld, in third markets. Thus one can only surmise that during the early parts of the 17th century locally produced linen was limited to sales within the region.⁸³

By contrast, the ribbon trades achieved world renown and, in due course, a strategic position within the Wupper valley economy. The reasons for such success are easily identified. Ribbon and lace making was the type of activity which took to the existing environment like a fish to water, distilling from the established framework the stimuli necessary to feed its secular dynamic. Every possible feature epitomizing the valley's commercial maturity was mobilized in support of the new manufacture. The availability of excellent yarn became a prerequisite for high quality production. Similarly, the extended network of business contacts and the relatively ample supply of indigenous capital were pressed into service to smooth the path for this fledgling industry to break into export sales.⁸⁴

⁸² W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 48. The actual amounts were 1339 cwts. of yarn and 100 cwts. of linen.

⁸³ *Idem.* It is worth observing that the *Garnnahrung* attempted and largely succeeded in extending its control over the production of linen fabric.

⁸⁴ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 49-51.

But for all their effectiveness, the local impulses would have never accomplished their purpose unless exogenous forces sweeping through the area would have provided additional impetus by confronting the new manufacture with the most potent of inducements towards expansion: ever widening markets. This, after all, was the Age of Baroque when throughout the Western World ribbons and lace, to adorn raiment and headgear, had become *de rigueur* for all those who had made it or at least had aspirations of doing so.⁸⁵

During the same period, Cologne, hitherto the region's traditional ribbon and lace center, was more than ever in the throes of industrial paralysis. The craft guilds, dominating this Imperial city, were outdoing each other in devising schemes meant to suppress anything that suggested change. Thus in the Rhineland a production vacuum of sizable proportions had been created and it was accordingly easy for such shrewd and unencumbered merchants as those from the Wupper valley to step in and fill this profitable void.⁸⁶

The *ambiance sociale* reflected these entrepreneurial successes. In 1610 Elberfeld was accorded the status of a town and thirteen years later the added right to extend its limits through incorporation of adjacent communities.⁸⁷ By 1640 the new city claimed 350 houses and some 1900 inhabitants, while in the case of Barmen the figures were 239 and between 1600 and 1900 respectively.⁸⁸ At the same time, accumulation of wealth, especially in the hands of the more experienced traders, seems to have grown apace. According to a report dated 1635, Engelbert Teschenmacher, a leading Elberfeld merchant had sold to Heinrich and Jacob de Groot of Rouen yarn

⁸⁵ *Idem.*

⁸⁶ KARL WÜLFRATH, *Bänder aus Ronsdorf - 150 Jahr J. H. Baur Sohn* (n. p., 1955), p. 8 and W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 51.

⁸⁷ See MAX BARKHAUSEN, *Staatliche Wirtschaftslenkung und freies Unternehmertum im westdeutschen und im nord- und süd-niederländischen Raum bei der Entstehung der neuzeitlichen Industrie im 18. Jahrhundert*, « Vierteljahrsschrift für Sozial- und Wirtschaftsgeschichte » vol. V, 1958, p. 179; J. F. KNAPP, *Geschichte, Statistik und Topographie*, p. 66 and WILHELM CRELLIUS, *Beiträge zur Bergisch-Niederrheinischen Geschichte*, in « Zeitschrift des Bergischen Geschichtsvereins », vol. 27 (1891), pp. 185-186.

⁸⁸ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 166-167 and HEINRICH HAACKE, *Barmens Bevölkerung im XVII. und XVIII. Jahrhundert* (Barmen: Oskar Born, 1911), p. 23.

worth 32858 Rthlr. and supposedly had made a 100 p.c. profit on the transaction.⁸⁹

Such scraps of extant evidence suggest a period of progress. This is in many ways remarkable considering the trials and tribulations which, throughout this half century, the Wupper valley had to face. During the first two decades, religious intolerance, including the expulsion of some minorities, darkened the scene.⁹⁰ Then in 1612 and again in 1619, a plague epidemic hit the area with dire consequences for the local population.⁹¹ Six years later, before the region had time to recover from the impact of this disease, it was subjected to the first of a series of military invasions. During the next two decades, troops, friend as well as foe, passed through the Bergish lands with tragic regularity, spreading havoc as they plundered, exacted ransom and sequestered local resources.⁹² To add to these horrors, the chaos and lawlessness of war had spawned a horde of bandits who roamed the country pillaging and murdering unless resisted by force.⁹³ Finally, this prolonged era of hostilities had dislocated Europe's trade routes and thus made the purchase of raw materials and the eventual sale of the finished product more cumbersome than ever.⁹⁴

It is a tribute to the stamina of this economy and its industries to have withstood the ravages of war and, even more significantly, to have come through poised for further growth. The various branches of local endeavor — yarn bleaching, linen weaving, and above all, ribbon making — adapted to the post-war boom, from the 1650's onwards, with great zest. The «Dutch loom» was easily introduced into the area. At the same time, sales of bleached yarn

⁸⁹ J. F. KNAPP, *Geschichte, Statistik und Topographie*, p. 169.

⁹⁰ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 116-167 and p. 268. In 1622 some of the local Baptists were expelled.

⁹¹ J. F. KNAPP, *Geschichte, Statistik und Topographie*, p. 172.

⁹² There is no lack of information regarding the ravages of war. See J. F. KNAPP, *Geschichte, Statistik und Topographie*, p. 9 and pp. 172-176 and G. VON GÜLICH, *Geschichtliche Darstellung des Handels...*, vol. II, pp. 176 and W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 219.

⁹³ J. F. KNAPP, *Geschichte, Statistik und Topographie*, pp. 175-176 and W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 218 and V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale...* (Elberfeld: H. BÜSCHLER, 1821, and reissued (Wuppertal-Born Verlag, 1963), pp. 35-36.

⁹⁴ H. F. MACCO, *Geschichte der Familie Wuppermann*, p. 26.

to France and England were on the upswing. By the 1660's Elberfeld appears to have been a flourishing community of some 400 houses. In the years 1667-1668 no less than 57752 pounds of yarn were sold in Amsterdam for re-export. And not even the French-Dutch war of the 1670's was to interfere with the forward march.⁹⁵

When in 1687 a fire virtually consumed this manufacturing center, a few prominent families left in despair to take up residence in neighboring Barmen. But several immigrants took the place of those leaving this burn-out community. The newcomers were attracted by the subsidies and tax exemptions (up to twenty years) promised by the Duke. More importantly, they were lured by what seemed to them an opportunity of pursuing profitable activities in a most hospitable environment.⁹⁶

Within a few years, the town, including its Reformed Lutheran Church, had been rebuilt.⁹⁷ Recovery from war and destruction was largely complete when, in 1690, Elberfeld but claimed 15 bleaching establishments and an annual output of 2400 cwts. of bleached yarn.⁹⁸ At about the same time, Elberfeld's population reached as high as 3000,⁹⁹ while Barmen, consisting of 240 houses, probably numbered more than 2000 inhabitants.¹⁰⁰

To an outsider looking down from one of the surrounding hills, the Wupper valley scene, anno 1690, must have appeared a bucolic

⁹⁵ On the post Thirty Years' War boom, see J. F. KNAPP, *Geschichte, Statistik und Topographie*, pp. 66-67 and 134 fn., W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 266-267 and W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 107. At that time French economic policy was to be dominated by the historic figure of Colbert. Colbert was bent on creating within France a major industrial structure and as part of his efforts reduced import duties on raw materials and semi-finished products to be used by the new manufacture. Bleached yarn to supply the lace making industry was to be a beneficiary of this liberal trade policy. By the 1670's, bleached yarn was to pay an import duty of no more than 2¾% of its value; see LAWRENCE DE LAPRADE, *Le Point de France et les Centres Dentelliers au XVII et au XVIII Siècles* (Paris: J. ROTHSCHILD, 1905), pp. 374-375.

⁹⁶ J. F. KNAPP, *Geschichte, Statistik und Topographie*, p. 67 and the account of the chronicler Johannes Merken in FRIEDRICH KERST, *Aus der Alten Wuppertales Chronik* (Wuppertal Barmen: Staats-Verlag, 1960), pp. 22-24.

⁹⁷ *Idem.* The town hall was not completed until 1707.

⁹⁸ J. F. KNAPP, *Geschichte, Statistik und Topographie*, p. 138. Nota bene, this quality refers to Elberfeld only.

⁹⁹ M. BARKHAUSEN, *Staatliche Wirtschaftslenkung und freies Unternehmertum*, p. 66.

¹⁰⁰ M. HAACKE, *Barmens Bevölkerung*, p. 23. At the time there were probably 430 families in Barmen. At the same time amt Elberfeld paid taxes on seven carding mills.

one. However, it is equally possible that anyone intimately acquainted with local conditions was already focussing upon the rate of urbanization making inroads into the countryside. But it would have surely required a social scientist of cosmopolitan background and almost super human prescience to view these developments as presaging the historic changes about to engulf land and people.¹⁰¹

The thrust of local progress was in large part due to the excellent market organization which had evolved over the years, assuring on the one hand the regular flow of the necessary raw materials into the area and on the other, the prompt disposal of the finished product among far flung customers. Ever since bleaching had emerged as an important industry, the provision of quality yarn had become of strategic importance. The adjacent districts were soon unable to meet the valley's ever growing demand for yarn and consequently the local merchants were obliged to look farther afield into the areas around Hagen, Sprodehövel, Paderborn, Herford, Lippe and Brunswick. But it was from the Hesse region, with Hildesheim and Kassel as the main outlets, whence eventually the Wupper vally came to draw the bulk of its yarn supplies.¹⁰²

A document from the year 1633 summarized the proceedings of a *Garnnahrung* meeting. Presided over by the local judges and the four *Garnmeister*, the conclave decided on procedures to be followed during the annual purchase of yarn. Only six traders representing the group were sent forth to transact the business and they were given definite orders as to the exact amounts to be bought in each market. Commercial practice of this kind would suggest

¹⁰¹ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 66-69 has this to say about Barmen: « Before 1709, those couple of thousand living here resided for the most part in unprepossessing houses strewn throughout the district; i. e. they were dispersed over one half of a square mile. Thus there did not as yet exist a proper locality which in a way could have been considered the nucleus of a future city ».

¹⁰² H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 41; G. VON GÜLICH, *Geschichtliche Darstellung des Handels*, vol. II, p. 192 and J. V. BREDT, *Geschichte der Familie Bredt*, p. 14. Also see W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 266 and OTTFRIED DRASCHER, *Das Textilgewerbe in Hessen-Kassel vom 16. bis 19. Jahrhundert - Veröffentlichungen der Historischen Kommission für Hessen und Waldeck* 28, 1 (Marburg: N. G. Elwert Verlag, 1968), pp. 29-30. Such was the importance of the Elberfeld merchants that they were able to exert considerable influence upon Hessen commercial policy. This influence lasted throughout the Eighteenth century.

that the Wupper valley merchants were very much aware of the methods through which monopsony power in the yarn centers would be further enhanced.¹⁰³

By 1648 the Elberfeld merchants were complaining that the yarn they had purchased at Hildesheim fell short of the required length. Six years later, Elberfeld's Mayor Peter Wülfiging addressed the Hildesheim city fathers on this very topic. Again, in 1682 the *Garnmeister* emphasized that the continued perpetration of these frauds caused the *Garnnahrung* members heavy losses — between twenty and twenty-five percent. This was especially so since the Wupper valley traders bought the brown yarn for cash and eventually sold it, when bleached, on credit.¹⁰⁴ Apparently, the Dutch, English and Flemish customers refused payment once they realized that the bleached yarn they had acquired did not meet standard specifications. The amounts involved in this trade must have been considerable. In 1682, Hildesheim marketed 200,000 Rthlr. worth of yarn of which, it is safe to assume, the Wupper valley took a sizable share. In that year alone, Balthasar von Carnap, one of Elberfeld's leading merchants, bought yarn valued at 2000 Rthlr.¹⁰⁵ Similarly, arrangements responsible for disposing of local goods were the outcome of centuries of evolution and experience and consequently no less effective than the counterpart framework on the purchasing side. Most probably, the first bales of Wupper valley yarn bleached for export were sold in Antwerp, at the time the undisputed hub of world commerce. As already shown above, by 1540 Elberfeld traders are mentioned transacting business in that city and throughout the next hundred years, Antwerp, with its insatiable demand for quality yarn, remained the Berg area's principal sales outlet.¹⁰⁶

Then a historic shift occurred. In due course, the Spanish occupation of the Netherlands and the disturbances occasioned by

¹⁰³ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 77-78. Many of the yarn dealers were Jewish traders and very petty ones at that. And by the 1730's the Elberfeld merchants claimed to have spent 100,000 Rthlr. annually. See. O. DRASCHER, *Das Textilgewerbe in Hessen-Kassel vom 16. bis 19. Jahrhundert*, pp. 145-146.

¹⁰⁴ J. V. BREDT, *Die Lohnindustrie*, p. 15. This also suggests that substantial capital was a prerequisite for entering this particular trade.

¹⁰⁵ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 78-80.

¹⁰⁶ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 80-82.

the Counter-Reformation played their part in hastening Antwerp's demise as focal point of international exchange.¹⁰⁷ In its place, Amsterdam usurped the pivotal role of world center for international trade and finance. And with their customary flexibility, the Wupper valley merchants promptly adapted their output to the specific requirements of the new demand.¹⁰⁸

But in addition to Amsterdam, Frankfurt am Main became, during the 17th century, an important outlet through which the Wupper valley merchants channelled their wares into Northern Europe, the German lands and, above all, into France. As mentioned earlier, Colbertian France had become a most significant market.¹⁰⁹

When in 1682, to provide one example, Peter Wuppermann's estate came to be probated, his Lyon factor still owed him the impressive sum of 2443 guilders for linen fabrics sold there.¹¹⁰

Already in the Middle Ages, Frankfurt had been a notable trading center, a position which, unlike other ancient cities, it was able to maintain and even enhance during the modern era. However, as an Imperial city, Frankfurt, like Cologne, was plagued by the internecine warfare of its guilds which thwarted all industrial progress and condemned all urban production to a standstill.¹¹¹ Since ribbon and lace had been among Frankfurt's staple products, it is not surprising that the Wupper valley merchants were to be most successful as they rushed in to close the gap.¹¹²

¹⁰⁷ CHARLES WILSON, *Anglo-Dutch Commerce and Finance in the Eighteenth Century* (Cambridge: The University Press, 1966), pp. 5 ff.

¹⁰⁸ W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 81. In 1606 the Westphalian estates protested to the Netherland authorities that Dutch mercenaries had waylaid Elberfeld and Barmen yarn dealers «on their way to Amsterdam and Sunsten». Four specific occasions are cited during which the Wupper valley merchants were robbed of 1500, 400, 1030 and 1200 Thaler worth of bleached and brown yarn respectively. See H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 41-42.

¹⁰⁹ See CHARLES WOOLSEY COLE, *Colbert and a Century of French Mercantilism* (New York: Columbia University Press, 1939), vol. 2, pp. 244-245.

¹¹⁰ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 82-84.

¹¹¹ On the role of Frankfurt a.M. as an important fair, see ALEXANDER DIETZ, *Frankfurter Handelsgeschichte* (Frankfurt a.M.: Herman Minjon, 1910-1925), vol. I, pp. 64 ff.

¹¹² W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 84-86. Even as far back as 1590, five Elberfeld merchants attended the Frankfurt fair; Johann Wichelhaus was one of them. See A. DIETZ, *Frankfurter Handelsgeschichte*, vol. II, p. 245.

Under the circumstances the Wupper valley traders were quick to make their mark on the Frankfurt scene as they gained a reputation for quality products among the international clientele. But the fortunes of prosperity have a way of generating their own pitfalls. It did not take long before the Frankfurt patricians were casting covetous glances at the handsome profits being reaped by the Wupper valley traders and they accordingly tried to share in these gains by insisting on higher market taxes to be paid by those coming hither from the Berg area. It did not help in smoothing matters when collection of these dues was left to tax farmers who did not shun high-handed methods in order to achieve their purpose. This, quite naturally, exacerbated what was already a tense situation and thus a dispute was unleashed lasting several decades.¹¹³

In the course of these altercations the contending parties issued several memoranda all of which help to illuminate the nature of Wupper valley commerce during this era. It seems that ever since the 1630's Elberfeld merchants had been regularly attending the Frankfurt a.M. fairs. By the 1670's they came in sizable numbers. Already then a few of them were resisting the discrimination practiced against them by the Frankfurt government even though such opposition exposed their wares to the risks of confiscation. As for the supposedly excessive burden of these dues, the gravamen of the charge was amply supported by a report produced in 1723 where it was shown that a merchant disposing of 2000 Rthlr. worth of goods was assessed the exorbitant sum of 46 Rthlr.¹¹⁴

Simultaneously, other aspects peculiar to this trade were brought to the fore. For one, several haulage men who carried these goods to market hailed from Radevorwald (a small Bergish township), thus providing evidence that the inhabitants of adjacent Berg communities were being increasingly absorbed into the industrial nexus of the burgeoning Wupper valley.¹¹⁵ Secondly, the trade figures for 1723 indicate that in this particular year some 30 merchants had come to Frankfurt disposing of 364 bales of ribbon and lace,

¹¹³ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 86-89.

¹¹⁴ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 84-89.

¹¹⁵ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 90.

263 bales of linen yarn and 134 pieces of linen fabric. According to W. Dietz's calculations, the total value of these wares was no less than 150.000, which meant an average sale of 5000 Rthlr. per merchant. By the standards of the day the latter amount is to be considered sizable and leads one to believe that these Wupper valley merchants who attended these fairs were exclusively oriented to this particular outlet. This in turn suggests that these self styled «deputies of the board of Elberfeld and Barmen merchants» were practicing by way of market specialization a kind of informal cartel arrangement through which they conveniently divided up the world market among themselves. Monopoly and monopsony, as it were, worked hand in hand.¹¹⁶

Finally, one further observation is in order: over the years some of the names of Wupper valley traders attending the fair disappear, others are added. However, there also remained a core of families of great survival power whose names reappear decade after decade and who, by virtue of their durability, came to assume the position of a dominant élite within the area.¹¹⁸ The rise of this mercantile oligarchy was very much part of emergent capitalism within local industry. Increasingly, the individual artisan bleacher was to work exclusively for one merchant who gave the orders, supplied the brown yarn, collected it when bleached and then effected the final sale. This so-called *Lohnbleicherei* (a crude version of the putting out system) gradually spread through the valley and became, in the course of the Seventeenth century, the dominant mode of production.¹¹⁹

In many instances the affluent yarn dealer also owned the bleach-greens which he leased to the artisans. This enhanced the latter's dependence upon the former. Moreover, the boom contributed to a secular rise in land rents, a state of affairs which tilted still further in the capitalist's favor his terms of exchange and power position

¹¹⁶ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 91-94 and p. 100. Other Wupper valley merchants specialized in trading directly with Cologne (still an important market), England, the Netherlands and France respectively.

¹¹⁷ G. VON EYERN, *Die Unternehmungen der Familie von Rath*, p. 15.

¹¹⁸ G. VON EYERN, *Die Unternehmungen der Familie von Rath*, p. 15.

¹¹⁹ J. V. BREDT, *Die Lohnindustrie*, pp. 24-25.

within society.¹²⁰ But it was above all their style of life that gave dramatic expression to the rich merchants' social pre-eminence. They resided in large and handsome houses covered « not with straw and wood » but with « red and black shingles » — and a little spire on top. These spacious abodes, as one contemporary chronicler reported it, stood conspicuously in the midst of walled courtyards with wide gateways opening upon a paved path through which wagons and horses carrying goods could pass with ease.¹²¹

Similarly, sartorial splendor was to distinguish the budding merchant prince from the rest of the local citizenry; he carried a stick studded with brass and other adornments and sported a long silken coat with a gold embroidered hat to match.¹²² Education buttressed this exclusiveness as the sons of this *haute volée* attended the local Latin school and besides were sent to be tutored by a French master who had settled in the area.¹²³

In the previous century landowners, bleachers and dealers constituted the local establishment as many a peasant entrepreneur pursued all these activities simultaneously. However, during the Seventeenth century the merchants had become increasingly a group set apart from the rest of the solid burghers by virtue of their superior wealth and power.¹²⁴ The very background of this newly created élite offers insights into the social mobility of this age and in turn mirrors, at least on a local level, the workings of the economic process.¹²⁵ Most of the leading families hailed from local freeholders and hereditary tenants whose founding fathers were shrewd enough to concentrate on commerce to the exclusion of all other employ-

¹²⁰ J. V. BREDT, *Die Lohnindustrie*, pp. 26-29; Bredt refers to the « new monopoly » of the landowners.

¹²¹ F. KERST, *Aus der Alten Wuppertaler Chronik*, pp. 18-20. Those, who among others, were to belong, during the first quarter of the Eighteenth Century, to this charmed circle were the families von Carnap, Cappel, ter Schüren, von Sybelsdor, Wilchelhausen, Wuppermann, de Weerth, Jan im Wüstenhoff and Teschemacher.

¹²² Note, these clothes were only worn on special occasion. On working days even the garments of the rich were conspicuously simple. F. KERST, *Aus der alten Wuppertaler Chronik*, pp. 36-37.

¹²³ J. V. BREDT, *Geschichte der Familie Bredt*, pp. 15-17 and K. GOEBEL, *Die Zuwanderung Zwischen Reformation und Franzosenzeit*, p. 42 and WILHELM CRECELIUS, *Beiträge zur Bergisch-Niederrheinischen Geschichte...*, pp. 216-217 and pp. 219 ff.

¹²⁴ W. DIETZ, *Die Wuppertaler Garnmabung*, p. 97.

¹²⁵ J. V. BREDT, *Geschichte der Familie Bredt*, p. 22.

ments.¹²⁶ But there were a few newcomers amongst them who had come to Elberfeld from Barmen or from farther afield to try their luck in this buoyant environment. Not infrequently success crowned their efforts only after they had achieved connubial bliss in established circles.¹²⁷ Marriage generally, however, accentuated the exclusiveness of this group; members of the *jeunesse dorée* sought out the nubile daughters of their kin and business partners living elsewhere, a reflection that in the course of the Seventeenth Century many a local trader had settled in ports and distant commercial centers in order to profit from the widening market for Wupper valley wares.¹²⁸

Under the circumstances, only the steady expansion and the rural environment in which he lived cushioned the artisan against the hardships of social descent and thus shielded him, at least temporarily, from the full implications of his quasi-proletarian status. For the time being, whatever tensions existed, they simmered below the surface. At the same time, it is worth observing that the widening of class cleavage was more pronounced in Elberfeld than in Barmen where the merchant had not as yet achieved the same kind of prominence.¹²⁹

¹²⁶ J. V. BREDT, *Geschichte der Familie Bredt*, pp. 46 ff. and J. V. BREDT, *Die Lohnindustrie*, pp. 28-29.

¹²⁷ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 97-98, and K. GOEBEL, *Die Zuwanderung Zwischen Reformation und Franzosenzeit*, pp. 42-43 and W. CREGLIUS, *Beiträge zur Bergisch - Niederrheinischen Geschichte*, pp. 216-217. Also see HANS KURZROCK, *200 Jahre von der Heydt-Kersten Söhne 1754-1954* (n.L: n.p.n.d.), pp. 5-7. Conrad Kersten, born in Spangenberg (Hesse) migrated, during the first decade of the 18th century, into Elberfeld. There he married, in 1711, Anna Christina Teschemacher, daughter of one of the leading local merchants. By 1717 Kersten had been elected to the office of city elder. By 1722, he became an elder of the church.

¹²⁸ *Idem*. Note that some of these centers were Frankfurt am Main, Bremen, Kassel, Leipzig, Antwerp, Lyon and London. Increasingly, some of the younger Wupper valley merchants started their careers as apprentices with their far-flung relatives.

¹²⁹ *Idem*. W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 98-99 distinguishes three periods concerning change in the Wupper valley's social structure. During the initial period, which lasted up until the end of the Sixteenth Century, all property owners were part of the upper crust. During the second period, which ends during the last decades of the Seventeenth century, changes in the economy had propelled the rich merchants to the top of the social hierarchy; most of them being descendants of local yeomen. As for the third period, coinciding with the opening of the Eighteenth century, a new era begins, marked by power being usurped by newcomers who marry into the established families.

Be that as it may, « industrial growth » continued to press against the quantity controls set by *Garnnahrung* rules. However, the proverbial flexibility of this district saw to it that the *Garnnahrung* edict of 1698 accorded each yarn dealer a much larger quota to trade in than heretofore: 300 cwts. per merchant plus an additional amount for each child as compared to 125 cwts. per bleacher. According to some historians, this edict in effect spelled the end of all limitations on output. From now on quotas were to be continually enlarged until in 1764 they were abolished. Besides, this *Garnnahrung* amendment specifically prohibited the nefarious practice of the truck system,¹³⁰ a pathological symptom of the extent to which by the late Seventeenth Century capitalism, in its more primitive form, was locally in the ascendant. All in all, a Wupper valley merchant looking back, from the threshold of the new century, upon preceding decades of growth and expansion, had good reason to view the future with confidence and with optimism.¹³¹

The Elberfeld bleacher and yarn Johann Plücker was the very embodiment of such a merchant. Extant documents pertaining to the probate of his estate illuminate the conventional successes of his life and the particular world that was his oyster. Born in 1656 into a family of bleachers and traders, Plücker made the most of the secular boom that marked the second half of the Seventeenth century. He enlarged upon inherited activities to include all kinds of new business ventures, most important of which was the manufacture and sale of ribbons. Moreover, by a prudent marriage to Maria Siebels, whose mother, in turn, was a Teschemacher, he joined the valley's élite. In due course, he became known for his local benefactions and for his public services and in 1678 and again in 1688 he was elected Mayor of Elberfeld.¹³²

¹³⁰ J. V. BREDT, *Die Lohnindustrie*, pp. 25-28 and H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 45. Also W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 42. Also see W. CRECELIUS and A. WERTII, *Urkunden zur Geschichte der Garnnahrung im Wuppertale*, part I, pp. 88-95.

¹³¹ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 129-130 and p. 269.

¹³² See the very important account by O SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeisters und Kaufherrn Johannes Plücker vom Jahre 1609-1710*, «Zeitschrift des Bergischen Geschichtsvereins», vol. 46 (1913), pp. 169 ff.

The specific items recorded in the probate of his estate point to a complex and far flung commerce. At his death in 1709, he was a creditor to customers and suppliers in all parts of Europe. In Antwerp, for example, a client was in debt to him to the order of 14000 Rthlr, in Rouen another one to the extent of 7735 livres. In London a Teschemacher (presumably an Elberfeld native who had taken up residence in England) still had to send him a sizable shipment of Safflor dye while a whole series of Hesse dealers, many of them Jewish, owed sums ranging from 53 to 679 Rthlr. In Sevilla, one Levino Tercy, held, on Plücker's behalf, two « barrels » of ribbons, four bales of yarn and « 600 Marks of silver ». And rather significantly, from the standpoint of demonstrating Leipzig's growing importance as a market for Wupper valley goods, at the time of his death, Plücker had a stock there (consisting, for the most part, of goods left unsold at the last fair) valued at 3272 Rthlr.¹³³

Given the nature of Plücker's activities it is not surprising to learn that he kept a ready supply of his main products and required raw materials close at hand. The stock of yarn and ribbons he bequeathed was appraised at 2440 Rthlr., his inventory of bed spreads at 2014 Rthlr and of safflor at 4555 Rthlr.¹³⁴ He also had in store some other dye stuffs which would suggest that he carried on a considerable import business in those materials.¹³⁵

Locally held debts owed to the estate, some of them already labelled « bad debts », were sizable and involved many of the most distinguished names in the area, including officials, aristocrats and even the reigning Duke himself. Perusing the roster of these creditors one strongly suspects that, at the time, Plücker and most of the other leading traders in the valley functioned as substitute bankers operating a rudimentary kind of capital market.¹³⁶ In turn, the very conditions bearing upon this latter role are highlighted by

¹³³ O. SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeisters und Kaufherrn Johannes Plücker*, pp. 175-180.

¹³⁴ O. SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeisters und Kaufherrn Johannes Plücker*, pp. 170-171.

¹³⁵ *Ibid.*

¹³⁶ O. SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeisters und Kaufherrn Johannes Plücker*, p. 175 ftn.

the 7000 Rthlr. cash which were part of the Plücker estate. In many ways, the need to hold idle cash was symptomatic of the period. In the absence of a banking system and an effective money market, there were as yet no sufficient outlets where surplus funds might have been invested in «near money» assets which, in turn, the merchants could have painlessly liquidated whenever they needed money to pay or lend cash to their suppliers, bleachers, weavers, and other workmen whose services they sought.¹³⁷

But it is the description of Plücker's home that conveys most suggestively the ambiance of the Wupper valley at this particular juncture of its development. Within this large yet simple abode there was as much space allocated to agricultural purposes as there was to bleaching and packaging of yarn and ribbons. Besides, the house contained, apart from agricultural implements, six cows, four horses and a large stock of potatoes, rye, wheat and beans.¹³⁸

This juxtaposition of trade, industry and agriculture was as typical of the age as it was of the man. *Au fond*, Plücker remained a yeoman-operator, a *kulak*.¹³⁹ He trod in the hallowed footsteps of his ancestors, bleaching yarn and tilling the land to provide food for his family, his servants and boarders.¹⁴⁰ At the same time, the peasant's proverbial shrewdness and vigor never left him; it was to stand him in good stead as he seized the opportunities that came his way in order to widen the scope of his business activities. But for all his preoccupation with world events, particularly as they affected the state of his markets, the price of his finished goods and raw materials and the exchange rates of the currencies he used, Plücker seemed to have remained, above all, concerned about

¹³⁷ *Idem*. On those occasions when the Wupper valley merchants did require banking services they availed themselves of the Cologne banking houses. Peter Wuppermann (who died in 1674) left 14 sacks filled with money plus one sack of gold. The value of the cash was about 4000 Rthlr. See H. F. MACCO, *Geschichte der Familie Wuppermann*, p. 30.

¹³⁸ O. SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeisters und Kaufherrn Johannes Plücker*, pp. 171-173. For similarly agrarian ties to industry and trade in a more developed country like England, see the letter (in 1757) by Jedediah Strutts to his wife in R. S. FITTON and A. P. WADSWORTH, *The Strutts and the Arkwrights 1758-1830 - A Study of the Early Factory System* (New York: A.M. Kelley Publishers, 1968), pp. 28-29.

¹³⁹ *Idem*.

¹⁴⁰ *Idem*; esp. p. 172 ftn.

local conditions and the inexorable sequence of seasonal activities that led up to an abundant harvest.

Working the soil must have been for a man so rational and calculating as Plücker more than a mere expression of filial piety. Since most of the other merchants were pursuing agricultural activities as well, one can only assume that, at the time, farming was a sound commercial proposition. At least it assured the area's self-sufficiency and postponed the day when corn for local needs would have to be imported into the valley at exorbitant prices. The high cost would have been unavoidable since the transport charges incurred in moving so bulky items as grain along almost impassable roads would have been considerable.¹⁴¹

To view these aspects of a «balanced economy» from this particular perspective makes one realize that the successes of Wupper valley commerce were not achieved in spite, but because of the simultaneous continuation of agricultural activities. Cheap, home grown food provided for low labor costs, which, in turn, endowed the Wupper valley manufacturers with their competitive force in world markets. Once again one is reminded of the fact — which can never be sufficiently emphasized — that in the pre-industrial age, a robust industry can only thrive within the framework of an equally vital agriculture.¹⁴²

Moreover, the feedback from this rural atmosphere was most salutary upon local mores and social attitudes in general. This was still a rugged society. Tastes were simple and work interrupted by supposedly invigorating prayer was the only known routine.¹⁴³ The

¹⁴¹ The hopeless state of the roads during this period has been described by RUDOLF SCHULER, *Verkehrsverhältnisse in den Herzogtümern Jülich und Berg zur Zeit des Herzogs Karl Theodor Kurfürsten von der Pfalz* (Düsseldorf: Ed. Lintz., 1917), Dissertation Bonn University. Also see W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 229.

¹⁴² Occasionally, it was not so much the quality of agricultural production per se that proved strategic for industrial progress as the agrarian structure which allowed capitalist yeoman to achieve a pre-eminent position within the community. For an interesting article along those lines, see E. L. JONES, *Agricultural Origins of Industry*, «Past and Present», n. 40, July 1968, pp. 58-71.

¹⁴³ O. SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeisters und Kaufherrn Johannes Plücker*, p. 173. Also see the account by H. F. MACCO, *Geschichte der Familie der Familie Wuppermann*, p. 30. Peter Wuppermann (senior) 1610-1674 still walked to the Frankfurt fair. He was supposed to have been a frugal man despite his wealth.

frivolities of a court and the costly diversions of an aristocracy were as alien and distant to these inhabitants as were the demoralizing inanities indulged in by a *popolino* of a Medieval city suffering from decay.¹⁴⁴

Even the affluent traders seemed immune to the fashions and luxuries of the big world. With expected regularity, these merchants frequented the various commercial centers to attend fairs and to strike bargains with clients and suppliers. During these sojourns (some of them of prolonged duration), they were bound to come into contact with the fleshpots of Egypt. But in spite of these temptations they apparently continued steadfast in their rejection of conspicuous consumption by virtue of their strict religion.¹⁴⁵

An inventory of Plücker's furnishings, jewelry and other household nick-nacks drives home this point.¹⁴⁶ Considering his wealth, these belongings were modest indeed.¹⁴⁷ Plücker and the other rich merchants of the Wupper valley presumably preferred to invest their substantial gains « productively » — i.e. in the expansion of their respective enterprises. The results of such a propensity were as prompt as they were obvious. Local exports thrived, symbolic of a vibrant community wholly dedicated to growth.

¹⁴⁴ For the classic account of a mob in a Medieval type city wresting privileges from the ruling class, see E. J. HOBBSAWM, *Primitive Rebels - Studies in Archaic Forms of Social Movement in the 19th and 20th Centuries* (Manchester: The University Press, 1959), chapter VII.

¹⁴⁵ There were, of course, recalcitrants who did not submit too willingly to the austere rules of this religion. On several occasions, the church elders admonished the « morals police » to invigilate more strictly the taverns where a carousing populace supposedly preferred to while away the Sabbath rather than attend church services. See O. SCHELL, *Beiträge zur Geschichte der reformierten Gemeinde in Elberfeld - Kirchliche Gebräuche. Kirchliches Leben der früheren Zeit*, in « Zeitschrift des Bergischen Geschichtsvereins », vol. 51 (1918/19), pp. 233-241.

¹⁴⁶ O. SCHELL, *Aus dem Inventarium des Elberfelder Bürgermeister und Kaufherrn Johannes Plücker*, pp. 180-195.

¹⁴⁷ O. SCHELL, (*ibid.*) considers the inventory of furniture, beddings, clothes and jewelry as testimony to solid affluence. There seemed only one concession to the good life (see pp. 195-196), an obeisance to a Rhineland tradition that was stronger than the ingrained habits of parsimony: Plücker's wine cellar was generously stocked, its value at Plücker's death was assessed at about 5000 Rthlr. These wines listed in the estate were uniformly from German vineyards. (Rhenish and Mosel wines predominate).

By contrast, a large part of the Plücker library contained French books, proof of how important at the time the French language was for Elberfeld-Barmen traders. France constituted the most important outlet for Wupper valley goods (pp. 196-198).

IV.

In the Wupper valley, the Eighteenth century had a decidedly auspicious beginning. The ribbon trades flourished. Their prosperity, in turn, created an atmosphere of experimentation and innovation. Henceforth, besides linen yarn, from which so far the ribbons had been exclusively made, silk waste, silk cotton and wool were used as well. In addition to these half woolen ribbons, the range and selection of goods offered was further enlarged with cords, trimmings of all kinds and braids, plain and fancy. Judging by their popularity, the farflung clientele, notably the French, liked what they got, wanted more and, in due course, identified these items as «Barmen wares». («Barmer Artikel»). The new label was to become a badge of distinction.¹⁴⁸

Moreover, linen weaving, which in the previous century had encountered difficulties in achieving export quality, now overcame these problems. Its sales soared and as a result the employment statistics for this period point unmistakably to an upswing in this sector.¹⁴⁹ This spurt, in turn, spurred attempts to introduce the cotton warp in the manufacture of linen fabrics. At the same time, the area's staple industry, bleaching, continued to prosper and improve as linens of all types — bedspreads, tablecloths, scarves, handkerchiefs and material for slave garments — and, of course, yarn, faced a burgeoning demand, above all in the British Isles.¹⁵⁰

¹⁴⁸ H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 45-46. In this connection it is also worth mentioning that by 1724 Göttingen's linen weavers and yarn dealers were supposedly adverse to expanding their bleaching business and ribbon trade because they feared that they would be unable to withstand the competition of the Wupper valley operators who were thought to be ahead; see W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 108-109.

¹⁴⁹ For the details regarding the rise of the local ribbon industry, including some of the early problems associated with the raw material supplies, see K. WÜLFERATH, *Bänder aus Ronsdorf*, pp. 10-11.

¹⁵⁰ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 269 and W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 108-113, who emphasizes that cotton was originally introduced as part of the import of Colonial wares.

The secular boom that marked the early decades of the Eighteenth century must be viewed in the broader context of world wide expansion.¹⁵¹ The buoyancy of overseas markets was strategic. The Spanish possessions in South America, which for a long time had been good customers, now became even better ones. Similarly, from now on, the West African Coast, the sugar producing islands of the West Indies, and above all, the North American colonies were even more avid customers of Europe's industrial products, particularly of textiles.¹⁵² And there appears no doubt that the manufacturing districts of the Rhineland, including the Berg area, fully shared in the growth of the newly evolving «Atlantic economy».¹⁵³

The continuous assimilation into an existing industrial structure of new goods for production and sale was a basic feature of the local scene and as such a hallmark of its dynamic. But apart from the propitious conjuncture of growing markets and the solid advantage of a relatively sophisticated commercial environment, there were additional factors which contributed to the area's material advance as well.¹⁵⁴ Most significantly, the configuration of the Wupper valley's social structure was most conducive to progress. The leading merchants remained venturesome, sensitive to changes in fashion

¹⁵¹ By virtue of its commercial importance, the English economy was in the process of becoming a «cyclical center». This is why English developments had exerted a powerful impact upon the industrial regions of Western Europe. Consequently, the article by A. H. JOHN, *Aspects of English Economic Growth in the First Half of the Eighteenth Century*, «Economica», N. S., vol. 28, 1961 and reprinted in «Essay in Economic History» (editor E. M. Carus-Wilson), vol. 2, pp. 360-373. (New York: St. Martin's Press, 1968) is most relevant.

¹⁵² For an account of this expansion, see the fine article by RALPH DAVIS, *English Foreign Trade, 1770-1774*, «Economic History Review», vol. XV, no. 2, December 1962, pp. 285-298.

¹⁵³ D. A. FARNIE, *The Commercial Empire of the Atlantic 1607-1783*, «Economic History Review», vol. XV, no. 2, December 1962, esp. pp. 212-214. That Wupper Valley products found an outlet «in all countries of Europe and in America» has been emphasized by W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, p. 73.

¹⁵⁴ Elberfeld and Barmen were typical twins whose coexistence accentuated their respective difference; the former was a mercantile center and primarily Reformed Lutheran, the latter was given to manufacturing and bleaching, and the majority of its inhabitants was Lutheran. But despite their differences, the common bond between them was a strong one. See, W. DIETZ, *Die Wuppertaler Garnababung*, p. 99.

and, for the most part, vigorous in pursuit of their business affairs.¹⁵⁵ Moreover, the Wupper valley was still an open society; anyone making his way from below had a chance to climb the ladder of success and in so doing invigorate the tired blood of those belonging to the established families.¹⁵⁶

During this era Elberfeld continued to attract the ambitious in search of a commercial fortune. As before, many of them hailed from Barmen whose place, in turn, was taken by migrants from Schwelm.¹⁵⁷ The latter flow was part of a secular movement out of the neighboring Mark (including Schwelm) — a Prussian possession — into the Duchy of Berg and especially into this area. A major proportion of the newcomers were men of military age. They were attracted to this valley not only because of the potential it offered but also because they sought to escape the vexations of the press gang. Throughout most of the Eighteenth century recruiting officers roamed the Prussian lands trying to satisfy the notoriously Gargantuan appetites of Frederick William I and Frederick the Great respectively for tall and brawn fellows to grace their guard regiments.¹⁵⁸ But whatever their motives, those settlers, who brought with them some capital resources, turned to trading and manufacturing while the less fortunate ones were to augment the pool of weavers, spinners and workmen for whom, at the time, there was a brisk demand.¹⁵⁹

Ever since the Seventeenth century the Duchy's demographic upsurge reflected the twin forces of spreading domestic industry and steady immigration. This is why by 1680 this area had supposedly made good the heavy losses in manpower — about 20 per cent — sustained during the Thirty Years' War. And by 1730 the

¹⁵⁵ W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, p. 73 and J. V. BREDT, *Die Lohnindustrie*, p. 48.

¹⁵⁶ W. DIETZ, *Die Wuppertaler Garnabrung*, pp. 97-99.

¹⁵⁷ K. GOEBEL, *Die Zuwanderung Zwischen Reformation und Franzosenzeit*, p. 43 and pp. 80 ff.

¹⁵⁸ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 230.

¹⁵⁹ *Ibid.* That the weavers, spinners, in short the 'wage earners' were to be recruited from among the propertyless has been emphasized by J. V. BREDT, *Die Lohnindustrie*, p. 48.

population had, once again, almost doubled, which suggests a one to one and a half percent annual increase throughout this period.¹⁶⁰

In this connection it is worth noting that at the time the Berg area also enjoyed the in-migration of Protestants fleeing Cologne where, because of stagnation and religious intolerance, life had become unbearable for them. The ducal authorities welcomed the arrival of so attractive a group, composed of solid merchants and able craftsmen. Following mercantilist practices then in vogue, such potential subjects were considered worthy of government aid and encouragement because of their expected contribution to the local economy in general and to the state treasury in particular.¹⁶¹

The newcomers soon proved their worth. They simply crossed the river and settled in Mülheim am Rhein, a sleepy burg which within a few years they were to turn into a bustling center of industrial activity. The Andrea brothers stood in the forefront of this thrust. Having been granted the monopoly rights for the manufacture of silk fabrics, in no time their new business became a resounding success.¹⁶²

Within the principality, Elberfeld and Barmen, quite obviously, registered the most spectacular advances. While in 1720 the twin cities claimed a total population of less than 6000 inhabitants, this figure rose to almost 8000 in 1747 and probably reached almost 9000 by the 1750's.¹⁶³ In the case of Barmen alone, between 1698 and the mid-18th century, the annual increase was of the order of 1.65 per cent. By the standards of that day so rapid a rate of

¹⁶⁰ HELMUTH DAHN, *Verluste der jülich-bergischen Landmiliz im Dreissigjährigen Kriege*, «Düsseldorfer Jahrbuch», vol. 45 (1951), p. 286. Dahn suggests the following population figures:

1600-1618	90 - 100.000
1650	70 - 80.000
1680	90 - 100.000
1730	1400 - 150.000
1770	210.000 - 215.000
1772	219.000
1792	263.000

¹⁶¹ LEO SCHWERING, *Die Auswanderung protestantischer Kaufleute aus Köln nach Mülheim a. Rh. I. J. 1714* (Trier: J. Lintz, 1907), pp. 5 ff.

¹⁶² See W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 232 and p. 269 and H. HAACKE, *Barmens Bevölkerung*, p. 28.

¹⁶³ *Ibid.* The tentativeness of these figures cannot be overemphasized.

urbanization was as noteworthy as it was symptomatic of the intensity of industrial activity which had gripped the Wupper valley and its environs during those decades.¹⁶⁴

As part of this overall pattern, Gemark, one of the twelve constituent localities of Barmen, eventually became the hub of the boom, primarily because of its central location and its proximity to a bridge spanning the Wupper. Gemark's sudden expansion coincided with the subdivision of the manorial estate¹⁶⁵ and the «communal forest» into 13 lots which were promptly purchased by eager burghers. Within twelve months two houses had been completed there, 13 by 1710 and the rest by 1717. In 1728 the town hall was built in the immediate vicinity.¹⁶⁶

Whereas in 1698 Gemark contained thirteen per cent of Barmen's total population, its share rose to almost 22 per cent by 1747. Twenty years later it could claim all the attributes of a city center. The sequence of this transformation, from a sparsely populated hamlet into a vibrant community seemingly bursting at the seams, underscores, once more, the force unleashed by the industry being developed here.¹⁶⁷

From a slightly different perspective, the changes in Barmen's employment structure tell the same tale. In 1709 the town claimed 55 engaged in agriculture, 8 day laborers, 15 merchants, 41 master bleachers, 21 journeymen bleachers, 4 linen weavers, 48 ribbon weavers, 2 twiners, 3 shoemakers, 3 bakers, 3 blacksmiths, 3 thimblemakers, 6 joiners, 9 publicans, 6 petty traders, 3 coopers, 1 roofer, 3 pig dealers, 1 miller and 40 paupers. Twelve years later, Barmen already boasted 25 merchants, 100 ribbon weavers, 15

¹⁶⁴ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 230-232.

¹⁶⁵ ROBERT WICHELHAUS, *Geschichte der Familie Wilchelhaus* (Düsseldorf: A. Bagel, 1922), pp. 44-47.

¹⁶⁶ J. F. KNAPP, *Geschichte, Statistik und Topographie*, pp. 180-181. Some road construction was being started at the time as well. Moreover, in 1715 the authorities decreed that for the next twenty-five years those settling «on Gemark» would be exempt from all dues, taxes and military conscription; see J. V. BREDT, *Studien zur Rechtsgeschichte von Barmen*, pp. 161-162.

¹⁶⁷ M. HAACKE, *Barmens Bevölkerung*, pp. 29-30. Also see V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale...* (Eberfeld: H. Büschler, 1821) (New Edition: *Beiträge zur Geschichte und Heimatkunde des Wuppertals* (Wuppertal: Born Verlag, 1963), vol. 8, pp. 70-71.

twiners, 56 masterbleachers, 30 journeymen bleachers, 20 tailors, 12 carpenters, 20 shoemakers and 30 petty traders. On all counts the upward trend is obvious. And, as it were to highlight its newly gained importance, Barmen erected, apart from its aforementioned town hall, both its first Lutheran as well as its first Catholic Church.¹⁶⁸

In the case of Elberfeld, statistics for two separate years are not available and therefore the local expansion cannot be as readily shown. However, the figures extant for 1702 demonstrated beyond doubt that already at this early date Elberfeld was a community wholly dedicated to trading in and manufacturing of textiles. In that particular year thistown claimed in its midst 2 spinners of waste silk, 29 knitters of trimmings and braids of various kinds, 1 comb maker, 36 linen weavers, 7 yarn winders, 3 women reelers, 8 twisters, 1 fancy weaver, 57 ribbon weavers, 4 silk carders, 9 dyers, 8 women lace knitters, 1 dresser and only 6 bleachers. Considering the circumstances the latter figure may appear surprisingly low; but it is really not so when one realizes that most of the bleaching was carried on in the rural parishes adjoining the town. In addition, 43 shoemakers, 6 cobblers, 36 master tailors, 28 bakers, 7 butchers and a host of other craftsmen and petty traders, among them 13 haulage men, attended to the needs of this textile center. Finally, as one might expect, Elberfeld boasted 15 linen yarn and thread dealers, 10 traders engaged in various kinds of transactions, most of them probably relating to textiles, and 10 export merchants who were the leaders and movers of this economy.¹⁶⁹

Even the neighboring hamlets, notably Wipperfürth, Wermelskirchen, Steinbach, Hückeswagen and Larnach, were swept up in this surge as Wupper valley merchants were to put out among the villagers ever larger amounts of raw cotton for spinning. By 1736,

¹⁶⁸ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 228-231. The master bleachers are referred to as «Lohnbleicher», which means they all worked on order for the wealthy merchants who took care of the packaging and exporting of the bleached yarn or sold it to local linen and ribbon manufacturers. Also, see V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, p. 75.

¹⁶⁹ ERNST MUTHMANN, *Das Elberfelder Einwohnerbuch von 1702/3*, «Zeitschrift des Bergischen Geschichtsvereins», vol. 64 (1936-1937), pp. 102-105.

2000 bales were distributed in this way, each bale weighing between 300 and 350 lbs. The thriving domestic industry continued to prosper up until the 1760's; then mechanically spun yarn imported from England tolled the knell of this particular activity. But notwithstanding the demise of this trade, the spinners did not suffer unduly because almost simultaneously the merchant-manufacturers offered them new and even more profitable employment opportunities.¹⁷⁰

Contemporary outsiders visiting this area were appropriately impressed. Writing in 1715, one of them, E. Ph. Ploennies, described Elberfeld as a town of «of distinguished merchants... and considerable trade...». Commenting on «Amt Barmen», he observed the «numerous bleachgreens where yarn is bleached with which, in turn, traders, for the most part residing in Elberfeld, carry on an extensive business. In addition, there are many here who make a living by combining agricultural pursuit with weaving linen ribbons».¹⁷¹

Fourteen years later, Court Councillor Wülffing opined that Elberfeld «by virtue of its world commerce might be legitimately referred to as a small Amsterdam. There are merchants here whose wealth and business acumen can be compared to that of the Dutch... and adjacent to the famous town of Elberfeld is the equally pleasant locality of 'Amt Ober-und Unter-Barmen' consisting for the most part of linen yarn bleaching establishments and merchants of all kinds...».¹⁷²

A qualified analogy with Dutch conditions might be equally invoked when scrutinizing the Wupper valley political structure. In view of the area's overwhelmingly commercial character, it is no

¹⁷⁰ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 231-232 and p. 271. Eventually these rural spinners turned to weaving «checks» and all the other types of half cottons for which this area was to become well known. Also see R. ISENBURG, *Untersuchungen über die Entwicklung der bergischen Wollenindustrie*, p. 15.

¹⁷¹ *Zwei geographische Beschreibungen des Herzogtums Berg aus dem ersten Drittel des 18. Jahrhunderts*, in «Zeitschrift des Bergischen Geschichtsvereins», vol. 19 (1883), p. 97 and p. 107.

¹⁷² *Zwei geographische Beschreibungen des Herzogtums Berg aus dem ersten Drittel des 18. Jahrhunderts*, pp. 122-123.

way surprising that for all practical purposes the rich entrepreneurs should have constituted an indigenous oligarchy. To be sure, this oligarchy was more open ended than similar power groupings in the older, metropolitan centers of Holland, France and England. Nevertheless, the Elberfeld-Barmen merchants formed a coterie of inter-related families who buttressed their economic domination by monopolizing, through mutual cooptation, the honorific offices within their respective communities. They accordingly held the posts of church warden, city alderman (including Mayor) and *Garnnahrung* trustee as if by hereditary right. Thus, increasingly, these budding merchant-princes came to shape the destinies of local life.¹⁷³

At the time, Gerhard Werner Teschemacher was the prototype of a leading trader. Scion of an old established clan, he married Anna Maria Wuppermann, a lady of almost identical background. In due course he became elder of his church, city father and finally Mayor of Barmen. Some of his account books, covering the period 1700-1740, survive, providing important insights into his ramified business dealings. His activities were as impressive as they were varied.¹⁷⁴ Initially, Teschemacher brought his yarn in the traditional centers; in such places as Minden, Hildesheim, Brunswik and Hanover where for centuries peasants of the surrounding countryside had eked out an existence growing and spinning flax for sale in the Duchy of Berg. But subsequently, especially during the second and third decades of the Eighteenth Century, Silesia became the principal source of his raw material supplies. This particular yarn was to be of very high quality and distance was not to prove a hurdle to its importation. Specifically, during this period, haulage costs, handling charges and tolls incurred in transporting the bales

¹⁷³ How narrow the base from which in the case of Elberfeld, the city fathers and the Mayor were elected, has been carefully documented by W. EDMUND STRUTZ, *Die Stadt- und Gerichtsverfassung Elberfelds von 1610-1807*, «Zeitschrift des Bergischen Geschichtsvereins», vol. 52 (1920-1921), pp. 40-46 und pp. 81-93; see also O. SCHELL, *Beiträge zur Geschichte der reformierten Gemeinde in Elberfeld*, pp. 212-214 and ERNST MUTHMANN, *Die Namen der Elberfelder Bürgermeister alter Ordnung und ihre Deutung*, «Zeitschrift des Bergischen Geschichtsvereins», vol. 35 (1922), pp. 105-110.

¹⁷⁴ Dr. OTTO BRÜGELMANN, *Die Handelsbeziehungen des Elberfelder Kaufmanns Gerhard Werner Teschemacher - Aus Einem Kontokorrent der Jahre 1700 bis 1737*, «Jülich-Bergische Geschichtsblätter», vol. 13, no. 1/2, Summer 1936, pp. 12 and p. 4. It should be noted that Teschemacher also carried on a retail business in textiles.

of yarn from Breslau (Silesia's main market) to the Wupper valley ranged from 7 to 13 per cent of the original « f.o.b. » price.¹⁷⁵

Teschemacher dealt in bleached yarn, thread and ribbons. His profits appear to have been handsome. According to available figures he sold, in 1723, bleached yarn in Antwerp at 20 1/3 Stüber per bale, a price which was 160 per cent above the 7 2/2 Stüber he had paid for brown yarn. Dietz hypothesizer, on the basis of some rough calculations, that 10 to 12 per cent of this mark-up went for marketing expenses, between 25 and 30 to 50 and 60 per cent were absorbed by wage costs, leaving the residual of about 100 per cent as gross profits. Later on, as Dietz points out, the surpluses waxed still juicier.¹⁷⁶

This, of course, suggests a generally high rate of return. But it should also be borne in mind that, during this period, foreign commerce was very much a speculative venture, not least because prices both in the raw materials as well as in the product markets were subject to wide fluctuations. Moreover, these « profits » included capital expenditures plus the financing of the sale of the product which usually took more than eighteen months to mature. At the time, cash payments were not customary in the export trade. More typically, the Wupper valley merchants transacted their sales by drawing bills on relatives who resided in those very localities to which these goods were being dispatched.¹⁷⁷

Little is known as to the proportions of ribbons, bleached yarn and thread sold by Teschemacher, though probably ribbons were the most important item. Nor is there any evidence available regarding the relative importance of the various outlets. But it is an established fact that Teschemacher's customers were spread throughout Western Europe, in France, in the Southern Netherlands and, above all, in London and in the ports along the Dutch coast whence

¹⁷⁵ W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 100-103.

¹⁷⁶ W. DJETZ, *Die Wuppertaler Garnnabrung*, p. 104. By the 1780's one merchant (Engelbert Evertsen) supposedly made profits of 200 to 300 per cent on his invested capital.

¹⁷⁷ W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 106. Inasmuch as Teschemacher and the other leading merchants were *Verleger*, they provided the yarn for the bleachers and the ribbon weavers respectively. More specifically, O. BRÜGELMANN, *Die Handelsbeziehungen des Elberfelder Kaufmanns Gerhard Werner Teschemacher*, pp. 5-6.

these wares were re-exported to the expanding overseas markets.¹⁷⁸ It was a time of secular buoyancy and Teschemacher's business enjoyed impressive growth rates. His annual volume of sales was worth 8700 guilders in 1705, reached 18700 in 1715, 54800 in 1730 and declined in 1735 to 48000 guilders. And given such successes it is in no way surprising that when, in 1740, Teschemacher died, he should have left his heirs what by the standards of the day was a considerable estate. The amount was in excess of 25000 Rthlr.¹⁷⁹

Similarly, all the other information about this period points in the same way to an environment in which rich and knowledgeable traders were able to make the most of a world boom in textiles. Above all, the biographical entries concerning the dealers and manufacturers are most specific on this point. Peter Wichelhausen (1646-1723) provides a classic example. He was the moving spirit behind Gemark's growth and Barmen's leading merchant. While, at this time, other bleachers produced annually about 100 cwts. of yarn, his output for 1721 had already reached about 300.¹⁸⁰ According to Werth, France was Wichelhausen's principal outlet and he assiduously adapted his products to satisfy the tastes of his main customers. He even set up dye shops for this purpose. In due course, his manufacture flourished and the profits to be derived from this business proved quite exceptional.¹⁸¹

But in spite of these achievements Wichelhausen was not content to rest on his laurels. More ambitiously, he was for ever seeking new spheres of activity. In 1692, he applied and was promptly granted the monopoly privilege for the making of thimbles. His entrepreneurial expectations were to be more than satisfied. Already five years later he petitioned for land to be granted to him in order to set up a second thimble manufacture. Finally, he asked and was

¹⁷⁸ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 102-103 and pp. 105-106.

¹⁷⁹ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 106-107.

¹⁸⁰ R. WICHELHAUS, *Geschichte der Familie Wichelhaus*, pp. 47-48. In 1727, one of Barmen's important dealers bleached 242 cwts. of yarn. He, too, was a major benefactor in the area. See ADOLF WERTH, *Über die Höfe im Werth zu Barmen und den Ausbau derselben zu einem Orte*, «Zeitschrift des Bergischen Geschichtsvereins», vol. VI (1880), p. 140.

¹⁸¹ *Ibid.*

given space and permission to build housing for Dutch workers he had recruited for this particular endeavor.¹⁸²

His eldest son Peter (1699-1772) continued as a rich merchant. But it was above all his two youngest sons, Johannes (1704-1781) and Peter Caspar (1706-1783), who expanded the paternal business and considerably increased the family wealth. As life long bachelors the two brothers became Barmen's principal philanthropists; their handsome legacies to the church and to various charitable institutions were eloquent testimony to their commercial successes.¹⁸³ In this connection it is also interesting to note that some of their gains had been invested in land.¹⁸⁴ This particular investment propensity would suggest that the wealthiest among the local capitalists at times experienced difficulties in finding safe and profitable outlets in commerce for the surpluses accumulated in the course of their business activities. This, of course, is a predicament typical of an economy that has not as yet experienced the industrial revolution.¹⁸⁵

As a member of one of the founding families, Peter Wuppermann, a wealthy and active merchant, was no less impressive. When he died in 1682, he left his heirs not only a large inventory of yarn and ribbons but also, as referred to earlier, a sizable amount of cash (4000 Rthlr.) plus debts still to be collected from Lennep and Amsterdam clients. Notwithstanding his riches, Wuppermann remained, according to the account of his grandson, a man of simple tastes who still walked to the Frankfurt fair. His sons Peter and Hildebrand and, in turn, his grandson Johannes continued the family business, bleaching yarn and manufacturing ribbons.¹⁸⁶

The prospering state of this valley and the potential for gain available to capitalists was equally evident among the Bredts, a family whose ancestor were also among the earliest settlers in the area. True to form and tradition, the Bredts bleached yarn and produced ribbons. In so doing they came to accumulate ever greater

¹⁸² *Ibid.*

¹⁸³ R. WICHELHAUS, *Geschichte der Familie Wilchelhaus*, pp. 52-55.

¹⁸⁴ *Ibid.*

¹⁸⁵ See H. J. HABAKKUK, *The English Land Market in the Eighteenth Century*, in « Britain and the Netherlands », J. S. Bromley and E. H. Kossman (editors) (London: Chatto and Windus, 1960), pp. 154-173 and espec. pp. 168 ff.

¹⁸⁶ H. F. MACCO, *Geschichte der Familie Wuppermann*, p. 30 and p. 33.

wealth which they channeled into the enlargement of their businesses and into good deeds. Consequently, they were to distinguish themselves as benefactors of their church and as community leaders.¹⁸⁷

Under this relentless pressure of expanding wealth, social mores had to change. Slowly but surely, the habits of Spartan life, which so far had been a hallmark of the local scene and had been deeply ingrained among all inhabitants irrespective of rank or class, gave way to a different tone and outlook. No longer were luxuries necessarily viewed as a sin to be avoided at all cost. The new posture the mercantile élite adopted was in part an instinctive response to growing affluence, in part a conscious effort to live up to what they believed to be their new station in life. From now on, the acquisition of expensive possessions was to be as much a badge of distinction as it was the result of deliberate strategy planned by the rich dealers to enhance their commercial and political status.¹⁸⁸

As has been pointed out, the Wichelhaus residence, built in 1701, reflected Rococo influences and as such marked the beginning of a new era.¹⁸⁹ Many of the rich merchants, who had spent years of apprenticeship in cosmopolitan cities and who subsequently maintained close contact with clients all over Europe, were now ready to absorb some of the tastes and fashions they had experienced abroad. They increased the number of servants in their households, kept riding horses in their stables and sent their daughters to finishing schools.¹⁹⁰ Above all, they were to build their new houses expressing awareness of the current styles.¹⁹¹ Moreover, on those

¹⁸⁷ J. V. BREDT, *Geschichte der Familie Bredt*, pp. 61-63 and JOHN VICTOR BREDT, *Geschichte der Familie Siebel* (Marburg: John Hamel, 1937), pp. 169-171 for a pen portrait of the merchant-bleacher and philanthropist Peter Eversen.

¹⁸⁸ J. V. BREDT, *Geschichte der Familie Bredt*, pp. 23-24.

¹⁸⁹ R. WICHELHAUS, *Geschichte der Familie Wichelhaus*, pp. 54-55.

¹⁹⁰ J. V. BREDT, *Geschichte der Familie Bredt*, p. 24 and E. MÜTHMANN, *Das Elberfelder Einwohnerbuch von 1702-1703*, p. 109. Also, the comments of the chronicler Merken regarding girls' finishing schools in F. KERST, *Aus der alten Wupperthaler Chronik*, pp. 42-44.

¹⁹¹ This particular impact on Berg architecture as reflected in the houses of the leading merchants has been emphasized by O. SCHELL, *Einige Beiträge zur historischen Entwicklung des bergischen Hauses*, in «Zeitschrift des Bergischen Geschichtsvereins», vol. 38 (1905), p. 330.

occasions when the reigning sovereign visited the twin cities, they entertained the Duke lavishly and offered him munificent gifts. Undoubtedly, pride in their wealth as reflecting their achievements was one of the reasons for their display of luxury.¹⁹²

Whatever their motive, this type of self-assertiveness was a far cry from the rustic modesty of a Plücker or a Peter Wuppermann whose inverted snobbery made a fetish of their parsimony. By contrast, the generation of traders reaching its prime during the 1730's and 1740's would have none of such meekness. Irrevocably it turned its back upon its peasant heritage, ready to assume the role of an urban gentry. Indeed, looking down from some of their portraits, with their fancy wigs, lace studded silk coats and spouses to match, these mid-18th century merchants exude the confidence, if not quite the power, of a bourgeoisie able to command respect from the world-at-large.¹⁹³

But there was another side to the local scene. The capitalist impetus which had catapulted the dealers into prominence and wealth was also the one which had created an atmosphere of popular reaction against them. By their very nature, entrepreneurial activities, as practiced by these merchant-princes, undermined traditional relationships. In turn, those adversely affected by the erosion of the status quo, craftsmen, petty dealers and the *menu people* generally, opposed the new order and vented their displeasure upon the worthies who seemed most directly responsible for it. There were others again, those from the middling ranks, who simply disliked these leading families for their grand manner and their arrogant ways. Whether this type of resentment was central to scheme of things or just a marginal phenomenon is difficult to assess. However, the existence of discontent during this period seems beyond dispute.¹⁹⁴

Local historians have usually devoted considerable attention to

¹⁹² J. V. BREDT, *Geschichte der Familie Bredt*, p. 24.

¹⁹³ J. V. BREDT, *Geschichte der Familie Bredt*, pp. 62-23 and KARL LOHMEYER, *Die Barmer Familie Keuchen und ihr Grundbesitz im 18. Jahrhundert*, « Zeitschrift des Bergischen Geschichtsvereins », vol. 44 (1911), p. 114.

¹⁹⁴ For comments regarding the environment that led to this revivalism. See W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 109.

the religious revivalism that swept through this valley during the 18th century. Unfortunately, none of the chroniclers ever probed the social origins of such a movement. Yet the possibility of a connection, between chiliastic stirrings and widespread social malaise, appears not too far fetched even though, to date, evidence on this score has not been forthcoming.¹⁹⁵

During the 1730's, millenianism reached a high pitch. The Ellerians, named after their charismatic leader Elias Eller, became restive as relations between them and the majority progressively worsened.¹⁹⁶ By 1737 the adherents of this sect had tired of life in Elberfeld and decided to leave their homesites and seek their Jerusalem in the neighboring hamlet of Ronsdorf.¹⁹⁷ The new habitat was to prove a most propitious setting. Soon after their arrival in this locality the Ellerians established a thriving ribbon manufacture and thereby laid the foundations for a prospering community as well. By 1741 they had set up a Latin School. Four years later the authorities raised this village to the rank of town and gave it a court of law. In time the ruling Duke, Carl Theodor, must have been appropriately impressed by the developments. In 1747 he paid a visit to Ronsdorf and was received by the local inhabitants with due pomp and circumstance.¹⁹⁸

By their commercial achievements the Ellerians enhanced those very forces of economic expansion and change against which they,

¹⁹⁵ The possible relationship between industrial work and a religious dissent was raised by FRIEDRICH CHRISTOP MÜLLER, *Chorographie von Schwelm - Anfang und Versuch einer Topographie der Grafschaft Mark - 1789* (edited by W. Crone) (Schwelm: Schwelmer Tageblatt, 1922), p. 30.

¹⁹⁶ GERHART WERNER, *Die Stillen in der Stadt - Eine Betrachtung über die Sekten, Freikirchen und Glaubensgemeinschaften Wuppertals* (Wuppertal: Hans Putty, 1964), pp. 17-19. Elias Eller was a ribbon weaver who through hard work and prudent marriage to the rich widow of his former employer rose to be an important ribbon manufacturer. He was, undoubtedly, a man of considerable talent and great energy. He also proved himself a shrewd politician. To his detractors he appeared as a fraudulent schemer and as a lecher.

¹⁹⁷ For some comments that the « children of Zion » are about to leave the thriving community of Elberfeld, see the report prepared in 1740 by the Prussian official Müntz, VICTOR LOEWE, *Eine politisch-oekonomische Beschreibung des Herzogtums Berg aus dem Jahr 1740*, « Beiträge zur Geschichte des Niederrheins - Jahrbuch des Düsseldorfer Geschichtsvereins », vol. 15 (1900), p. 171.

¹⁹⁸ K. WÜLFRAH, *Bänder aus Ronsdorf*, pp. 18-19 and J. V. BREDT, *Die Lohnindustrie*, pp. 60-61.

qua dissidents, had originally reacted. The dialectic of success emasculated, as it were, the radical implications of their millennia. They continued to espouse the chiliastic teachings as part of their religious ritual. But eventually these doctrines were to lose their erstwhile fervor given the affluence of the Ronsdorf manufacturers and the speed with which they were being absorbed into the local establishment.

During the same period, though on a somewhat different plain of social discourse, the linen weavers were resisting the pressures generated against them by a buoyant environment. Within this area the linen weavers were a new group. While at the beginning of the century there had been but a handful of them in the twin cities, their numbers had grown to about 300 masters and 300 journeymen by the 1730's. The increase reflected the recent expansion of this trade within the district and more specifically its resounding success in world markets. Apart from bed spreads and half cotton pieces, the staple product consisted of blue and white checkered fabrics used as garments for slaves on plantations.¹⁹⁹

The linen weavers were recruited among the ribbon weavers, the sons of cotters and small peasants and, as suggested earlier, among the ranks of young men fleeing the Prussian press gang in the neighboring Mark.²⁰⁰ Whatever their background, they all joined the trade within the framework of a domestic industry. In his own house, the master, his family and his journeymen were to be engaged in a joint effort. Women and children, as expected, performed the ancillary activities, leaving the men to weave the yarn. The raw material had been put out to them by a *Verleger* who, in turn, collected the fabric and paid the master for it on a piece rate basis. Given this mode of production, the weaver was increasingly

¹⁹⁹ W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 113. The use of cotton within the linen trade, gave this manufacture a powerful impetus. According to Dietz, raw cotton was initially brought into the Wupper valley as part of the import trade in colonial products. This local pattern would help corroborate the suggestive hypothesis advanced by ERIC HOBBSBAWM that... «The cotton industry was launched, like a glider, by the pull of the colonial trade to which it was attached...», *The Age of Revolution Europe 1789-1848* (London: Weidenfeld and Nicolson, 1962), pp. 33-34.

²⁰⁰ J. V. BREDT, *Die Lohnindustrie*, p. 48.

dependent upon his rich employer and despite his formal artisan status became, for all practical purposes, a domestic wage earner.²⁰¹

Against such a background of social stress, efforts by the linen weavers to improve their lot was a most natural reaction. They tried to exploit the propitious conjuncture of rising demand for their particular services by launching a bid for a guild of their own. They were to be granted their wish in 1738.²⁰²

So prompt a response to craft demands by the authorities was, in part at least, due to the conjuncture of special circumstances. At the time there seemed little love lost between the Catholic officials resident in the valley and the merchant élite consisting entirely of either Lutherans or Reformed Lutherans. Consequently, the local bureaucrats were only too willing to support the formation of an institution that could conceivably emerge as a countervailing force against the all powerful *Garnnahrung* dominated by the Protestant worthies.²⁰³

Despite its trappings the new guild was no more a craft corporation of the traditional type than the *Garnnahrung*. Loosely organized, a characteristic of such groups in the 18th century, the linen weavers' guild was essentially an organization meant to protect the craftsman in his new status as domestic wage earner.²⁰⁴ This is why its first task was to control and possibly reduce the supply of domestic weavers; by limiting the number of apprentices per master and by regulating entry into the trade. Furthermore, the new guild forbade local entrepreneurs to distribute yarn among unincorporated weavers living outside the twin cities, thus hoping to eliminate, within Elberfeld-Barmen, the competitive pressures exerted by neighboring Schwelm.²⁰⁵ Frederick the Great's efforts to promote a weaving industry throughout the Mark, and especially in Schwelm, had resulted in the creation of a source of cheap labor which the Wupper valley merchants were anxious to utilize.²⁰⁶

²⁰¹ OTTO SCHELL, *Geschichte der Stadt Elberfeld* (Elberfeld: Baedersche Buch- und Kunsthandlung und Buchdruckerei, 1900), pp. 238 ff.

²⁰² KARL SPANNAGEL, *Die Gründung der Leinenweberzunft in Elberfeld und Barmen im Oktober 1738*, « Zeitschrift des Bergischen Geschichtsvereins », vol. 30 (1894), p. 181.

²⁰³ W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 114.

²⁰⁴ K. SPANNAGEL, *Die Gründung der Leinenweberzunft*, p. 196.

²⁰⁵ K. SPANNAGEL, *Die Gründung der Leinenweberzunft*, p. 186.

²⁰⁶ J. V. BREDT, *Die Lohnindustrie*, p. 51.

But this injunction appeared to have been of limited effectiveness. The guild was no more able than the *Garnnabrung*, with respect to bleaching, to put a complete stop to the practice of sending yarn to be woven outside the confines of its jurisdiction. The reason why such smuggling persisted is obvious: the Mark province, and Schwelm in particular, still enjoyed a rural setting where living costs and land rents were lower than in the more urbanized context of the Wupper valley.²⁰⁷

The local weavers were adversely affected by continued outside competition. For them these specific pressures constituted an additional irritant superimposed as it were upon their general problems created by capitalist penetration. The result was that these artisans never quite shared in the benefits of rapid expansion which the linen industry and especially the weaving sector experienced throughout the first half of the 18th century.²⁰⁸ Their earnings declined; at best, they remained stationary as the immigration of weavers from outside the Duchy could not be stopped. Moreover, the weavers' plight was further aggravated by a tacit agreement among the merchant-manufacturers to maintain existing wage levels by not bidding for each other's employees.²⁰⁹

Internal dissensions, weakening the guild since its inception, were evidence that the clash of opposing interests was not limited to dealings between merchants and craftsmen. Industrial expansion had exacerbated the master-journeyman relationship as well.²¹⁰ Eventually, growth made even the master-craftsmen turn against each other when a few of them waxed rich and ascended, for all intents and purposes, into the capitalists class.²¹¹

²⁰⁷ *Ibid.* In the Mark there were already 651 people, plying 279 looms, who were exclusively engaged in working for Berg merchant-manufacturers. Also see O. SCHELL, *Geschichte der Stadt Elberfeld*, p. 240.

²⁰⁸ W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 113.

²⁰⁹ ALPHONS THUN, *Die Industrie am Niederrhein und ihre Arbeiter, Staats- und Socialwissenschaftliche Forschungen* (Leipzig, Duncker and Humblot, 1879), book II, part. II, section III, pp. 184-187.

²¹⁰ J. V. BREDT, *Die Lohnindustrie*, p. 52. Journeymen but received one half of the piece rate paid by the *Verleger*; the rest was pocketed by the master as the «wages of supervision».

²¹¹ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, pp. 182-183.

These fortunate few expanded their workshops and integrated production by adding to their traditional activity the preparation of the linen yarn and the finishing of the completed fabric. Thus they claimed an ever larger share of the available supply of journeymen. The smaller masters, disadvantaged by these developments, protested vehemently. Above all, they resented the manner in which they were denuded of their work force. Because of their impecuniousness they were unable to provide the better lodgings and better food that constituted, in a period when payment in kind still predominated, the principal attraction for the journeymen to work for a larger master.²¹²

Consequently, the smaller masters called upon the government to put an end to the competitive bidding within the labor market. The ducal government complied and in 1754 passed an order making it illegal to give journeymen warm food at suppertime. Even the serving of hot coffee or tea was specifically forbidden. The same edict enumerated a list of foods, with relevant substitutes, that the masters could give their journeymen.

Not surprisingly, all these efforts, purporting to attenuate excessive competition in the labor market and thereby save the small master from ruin, were doomed to fail. They ran counter to the drift of events. The food and the remuneration which the more substantial masters offered their journeymen could not be effectively controlled. More significantly, the journeymen were being increasingly paid in money wages. Thus they came to buy their own food, which, in turn, rendered the food list with its ancillary rules otiose.²¹³

The master-bleachers were confronted by similar difficulties. Despite their ancient tradition as a local craft, and despite their membership in the area's most venerable corporation — the *Garnnahrung* —, they were hard put by the advance of capitalist irruption in ever more sophisticated forms. The specific «backwash» to progress from which the bleachers suffered came by way of a «scissor movement». On the one hand, they were exposed to the

²¹² *Ibid.*

²¹³ *Ibid.* and K. SPANNAGEL, *Die Gründung der Leinenweberzunft*, pp. 192 ff.

pressures of the Mark bleacheries. The competition of these latter establishments became more intense because of lower production costs and because of the energetic support given them by Frederick the Great. In view of such strategic advantages accruing to the Mark firms, it is in no way surprising that, in defiance of strict rules against outside bleaching, some of the Wupper valley dealers persisted in this illegal practice thereby jeopardizing the very existence of the indigenous craftsmen.²¹⁴

On the other hand, the bleachers of Elberfeld and Barmen faced increasing living costs and, to the extent that most of them were tenants, rising rents for the bleachgreens they leased. Given so unfavorable a constellation of market forces as far as they were concerned, the local bleachers were intent to counteract these inpropitious circumstances by bleaching with the use of various chemicals. By so doing, they hoped to lower costs as they expedited the process of production. The dealers, in turn, feared a deterioration in the quality of the product and therefore reacted to these new methods by pressing the *Garnnahrung* to reiterate its uncompromising stand against unnatural bleaching. Though a reminder regarding such a prohibition was promptly issued, the order was largely ignored. Eventually, of course, whitening with the aid of chemicals became the rule.²¹⁵

These stresses and strains threatening the social order did not inhibit the steady advance which was a hallmark of the Wupper valley throughout the first half of the 18th century.²¹⁶ Not even the many wars which during this period darkened the European scene, nor the periodic famines and financial crises, impeded the

²¹⁴ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, pp. 171-172. Frederick the Great granted to these bleachers exemption from military service and premiums in support of their efforts. Also see J. V. BREDT, *Die Lohnindustrie*, p. 31.

²¹⁵ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 169 and H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 44.

²¹⁶ By the 1750's « Amt Barmen » had reached a population of 4500; the community of Gemark expanded spectacularly and already extended into several adjacent hamlets. The other localities that were part of Barmen also enjoyed respectable growth rates; notably Wichlinghausen, Rittershausen, Heckinghausen. See W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 231-232.

area's economic progress.²¹⁷ Local buoyancy seemed unquenchable. The twin cities' bleached yarn continued to enjoy a fine reputation and a correspondingly brisk demand in world markets.²¹⁸ The other branches of the textile trade fared equally well, most notably the manufacture of braids and ribbons, made of linen with an admixture of cotton or silk.²¹⁹ At the same time, the valley's most recent activity, half cottons (the so-called «Siamosen»), experienced a massive upswing.²²⁰

This sort of success was to feed on itself as a spirit of optimism and a penchant for experimentation had seized the commercial imagination. The Elberfeld-Barmen merchants exuded the confidence one observes among men who never had to tolerate failure. Flushed with the profits that betokened their triumphs throughout this secular boom, the entrepreneurs were continuously seeking new outlets for what appeared to be their underemployed talents and their surplus funds.²²¹

By the 1740's and 1750's they accordingly introduced into the valley the weaving of silk ribbons, fancy ribbons (with all kinds of embroidery) and the manufacture of silk fabrics. With respect to the latter, the Andreä brothers in Mülheim a. Rh. were to protest most resolutely that for this branch of the textile industry they alone had been granted monopoly privileges within the Duchy. Consequently within the Wupper valley efforts along those lines were to be temporarily postponed. But in spite of such an injunction,

²¹⁷ For the ups and downs of the European economy during the 18th century from the vantage point of the United Kingdom, see the well known study by T. S. ASHTON, *Economic Fluctuations in England 1700-1800* (Oxford: Clarendon Press, 1959, esp. chapter 6; conclusions).

²¹⁸ At the time France was the principal customer for the bleached yarn and for the various types of ribbons. See W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, p. 73.

²¹⁹ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 274 and W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer und statistischer Beziehung*, p. 74.

²²⁰ *Ibid.*

²²¹ This expansion coincides with the beginning of the rather happy reign of Carl Theodor. Industrial growth went hand in hand with increased diversification of manufacturing output. See W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 130.

official directives in no way cramped the vigorous style displayed by Berg entrepreneurship.²²²

Moreover, the local dealers expanded their hitherto more limited role to become the *grands marchands* of the whole region. They took in commission or traded on their own account Crefeld silks, Solingen wares and the various other products of the Lower Rhineland. Increasingly, exports and imports, covering an ever wider radius, moved by virtue of the Berg traders' commercial acumen and their financial resources.²²³ The opening, in 1754, of the first Elberfeld Bank, « Gebrüder Kersten », confirmed the organic pattern of this evolution. At the same time, the new institution was symbolic of the age.²²⁴

Over the years this particular firm had dealt most successfully in the export of textile articles and, to some extent, at least, in the import of colonial products. By the very nature of their international business, Abraham Kersten and his sons had become involved in all kinds of financial transactions. It is therefore not surprising that in the end they should have decided to specialize in the provision of banking services which in the area were sadly lacking and which, if supplied, promised handsome returns.²²⁵

Such pioneering activity helped, most significantly, in establishing the nucleus of a local money market. Henceforth, available savings were to be more effectively channelled into profitable investments. Even the workings of the credit mechanism underlying foreign commerce became more efficient as the Valley's merchants wanting to purchase or discount bills of exchange no longer had

²²² W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 274 and J. V. BREDT, *Die Lohnindustrie*, p. 59. Because of their far-flung business connections the Wupper valley merchants were in an excellent position not only to become acquainted with the various new manufacturing ventures being practiced in the Western World (notably in France and Holland) but also to assess the economic feasibility of these activities. Besides the twin cities' dealers had the necessary capital that enabled them to assume the role of local innovators.

²²³ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part. II, section III, p. 170.

²²⁴ H. KURZROCK, *200 Jahre von der Heydt-Kersten Söhne*, p. 16-17.

²²⁵ H. KURZROCK, *200 Jahre von der Heydt-Kersten Söhne*, p. 10-12. For « an interpretation of banking as originating, in the commerce of notes and drafts rather than in loans and deposits », see GEORGE V. TAYLOR, *Types of Capitalism in Eighteenth-Century France*, p. 486, fn. 2.

to rely on the services provided by out of town banking houses. By virtue of these new institutions (including those that followed in the Kersten footsteps), doing business in the twin cities' had been endowed with additional advantages. And the long run implications of this innovation were equally favorable: the indigenous forces of progress were given a powerful boost for years to come.²²⁶

V.

The period 1746-1756 marks the beginning of that strong, secular boom that spanned most of the second half of the 18th century. Throughout this decade many new firms came into existence. For the most part these businesses were headed by *novi homines* bent on success by making goods previously unknown in the valley and by applying novel techniques of production and organization.²²⁷ The manufacture of bed linen and materials, for use as sailors' shirts stood in the forefront of these innovations. The latter fabrics complemented the manufacture of «Siamoisien», the half cotton pieces, which had been introduced into the area during the thirties and which, at this particular stage, enjoyed a very notable rate of expansion.²²⁸

At the same time, bleaching and the traditional activities based on the use of fine yarn thrived as well. Those working along established lines enlarged the range of their offerings, of ribbons, cords, braids and all kinds of other small wares known as «Barmen articles». Improved contraptions were being added to the ribbon loom in order to raise the effectiveness and the variety of weaving fancy items.²²⁹

²²⁶ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 239 and E. STRUTZ, *Bergische Wirtschaftsgeschichte*, p. 366 emphasizes the beginning of a new era.

²²⁷ W. HUTHSTEINER and C. ROCHOLL, *Barmen in historischer, topographischer, und statistischer Beziehung*, p. 73.

²²⁸ E. STRUTZ, *Bergische Wirtschaftsgeschichte*, pp. 366-367.

²²⁹ W. LANGEWIESCHE (editor), *Barmen in historischer, topographischer und statistischer Beziehung*, p. 73 and F. KERST, *Aus der Alten Wuppertaler Chronik*, p. 42.

To some extent at least, the rapid growth of local manufacturing was only feasible because the valley's entrepreneurs were able to draw on the labor supply of the adjacent localities in the Berg area. Some of the communities — Lennep, Hückeswagen, Radevormwald — boasted an ancient tradition of woolen cloth manufacturing. At mid-century this industry happened to be in the doldrums, a state of affairs which facilitated the mobilization of these inhabitants to spin and weave cotton and linen.²³⁰ Besides, ever since the Forties, some of the Wupper valley merchant-manufacturers began to put out linen and cotton for weaving not only in the Mark but also in localities on the left bank of the Rhine; especially in the Gladbach-Rheydt district.²³¹

In turn, the dynamic of this forward thrust altered the functional division of roles between the twin cities' and the valley's economic structure in general. So far, Barmen and its environs had specialized in bleaching and the manufacturing of ribbons while Elberfeld was the region's commercial center. Henceforth, Barmen continued to depend on the products of the bleachgreens and the ribbon loom. However, from now on, Elberfeld, in addition to its mercantile activities, engaged, on an ever larger scale, in the manufacture of fabrics. In due course, the latter branch achieved a key position within the valley.²³² This also meant that within this polity the newcomers, crowding into this particular sphere, were given the chance to gain the prominence that was being accorded to men of substance.²³³

As on previous occasions, the sweep of this textile boom engulfed all aspects of the local economy. Social capital — including the « infrastructure » — was among the first to feel the pressure

²³⁰ R. ISENBURG, *Untersuchungen über die Entwicklung der bergischen Wollenindustrie*, p. 15 and W. HARLESS, *Aus Hückeswegens Vorzeit*, «Zeitschrift des Bergischen Geschichtsvereins», vol. 25 (1889), p. 87.

²³¹ H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 48.

²³² W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 128 refers specifically to Barmen's continued specialization in «small wares» Elberfeld came to concentrate on the manufacture of fabrics.

²³³ E. STRUTZ, *Bergische Wirtschaftsgeschichte*, p. 366 emphasized that innovations in manufacturing were primarily carried on by newcomers.

of increasing demand.²³⁴ It was a decidedly rural context within which the Berg area process of industrialization evolved.²³⁵ This is why this area possessed none of that extra margin, with respect to housing and transportation, one might occasionally observe in medieval type settings, where after perfunctory repairs, abandoned buildings and roads, belonging to an earlier age, can be hastily resurrected to meet the exigencies of current progress. In this frontier-like atmosphere no such aid from the past to sustain the claims of the present could be expected. Shortages of amenities of any kind had to be made good by the determined efforts on the part of contemporaries.

In 1738 Peter Wichelhausen's widow died. Her heirs disposed of parts of Rolingswerth, the family estate, in small lots. By so doing they sparked a building boom within the Gemarkte district of Barmen that lasted until 1761. Whole blocks of new streets appeared on the scene.²³⁶ The consequences were to be similar when, in 1753, Barmen's chief official, Judge Alhaus, decided to replenish the state treasury by subdividing the ducal estate Dörnerhof and auctioning off the plots of land. The various holdings were promptly taken up by eager customers in need of housing to live and work in. Construction on this particular location continued throughout the Sixties. And once again a series of new sections of town were established.²³⁷

The success of private initiative in supplying the additional services so necessary for the growth of Wupper Valley manufacturing was, at least in part, due to the foresight and support proffered by the authorities. The aforementioned Judge Alhaus, who was the local embodiment of state power, behaved very much in the

²³⁴ As regards the pressure on the road from Barmen to Elberfeld, see V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, p. 128.

²³⁵ Especially Barmen still appeared like an overgrown village. See W. DIETZ, *Die Wuppertaler Garnabruung*, p. 128.

²³⁶ A. WERTH, *Über die Höfe im Werth*, p. 142.

²³⁷ Whereas until then the annual rent accruing to the state from the lease of the Dörnerhof amounted to 39 Rthlr., Alhaus immediately realized 10182 Rthlr. in letting these lots on hereditary leases. Besides, from then on these hereditary tenants paid in addition an annual quit rent of 749 Rthlr. For details regarding the subdivision of the Dörnerhof, see V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 97-98. and above all J. V. BREDT, *Studien zu Rechtsgeschichte von Barmen*, pp. 162-168.

then fashionable tradition of a Dutch-type mercantilist administrator. He not only seemed to appreciate the benefits accruing to government and society from the extension of industrial activity but he appeared equally alive to the desirability of official intervention on behalf of an enlarged and more effective « infra-structure » that would invigorate the entrepreneurial climate.²³⁸

In 1748, Alhaus decided to press, in the name of the Duke, for the widening of the road leading from Rittershausen, via the center of Barmen, to Elberfeld. Given his status, Alhaus may not have possessed the power to do anything about the Wupper valley's woefully inadequate connections with the outside world. But he was at least able to make his contribution to intra-district transportation and he did so with élan, eliminating all the obstacles that stood in the way of the program.²³⁹ He immediately engaged in negotiation with those who had to cede the land for the enlargement of the thoroughfare, he arranged for a loan of 7630 Rthlr. to be raised by Barmen to pay the construction costs and he eventually petitioned the provincial government in Düsseldorf to put at his disposal troops to do the actual work after he had been unable to secure locally the necessary labor force.²⁴⁰

With military aid the improved highway was opened to traffic in 1752. All indications suggest that the project was acclaimed a success. In any event, during the following year Alhaus was, once more, busy building another road, this one connecting Wichlinghausen with Wülfig. And at the same time, he had another road paved with stones.²⁴¹

To judge by all his accomplishments, Alhaus must have been a

²³⁸ For an evaluation of Johann Carl Friedrich Alhaus, see the comment in V. P. SONDERLAND, *Die Geschichte von Barmen in Wuppertale*, p. 94 fn. and J. F. KNAPP, *Geschichte Statistik und Topographie*, pp. 181-182.

²³⁹ In his efforts Alhaus appears to have enjoyed the support of some leading merchants. For some contemporary commentaries regarding the abysmal conditions of this particular road and the difficulties encountered by those trying to overcome the objections of the men who did not care about the improvements, see KARL LOHMEYER, *Die Barmer Familie Keuchen und ihr Grundbesitz im 18. Jahrhundert*, pp. 110-111.

²⁴⁰ V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 94-95.

²⁴¹ KARL SPANNAGEL, *Barmen im siebenjährigen Kriege - Eine Beckmannsche Chronik*, « Zeitschrift des Bergischen Geschichtsvereins », vol. 26 (1890), pp. 99-100 and V. P. SONDERLAND, *Die Geschichte von Barmen in Wuppertale*, p. 94.

man of many parts.²⁴² He was not content to confine his attention to the transportation sector of social overhead capital. Simultaneously, he was concerned with the provision of all the amenities that might raise the quality of life of the people under his jurisdiction and thereby, indirectly at least, increase the area's productive efficiency as well. In 1752 he set up the first local poor house and, in addition, outlined a scheme that was to rationalize the town's eleemosynary activities. Soon after, he was energetically pursuing measures to combat the pilfering of yarn left to whiten on the bleachgreens. This abuse had gone on for ages and had inflicted losses upon the industry.²⁴³ Finally, Alhaus stood in the forefront of a plan to provide Barmen's growing Catholic community with a new church plus burial ground.²⁴⁴

But to enumerate some of the contributions rendered by an official, however meritorious, is not meant to exaggerate the extent and significance of governmental action. At the time, bureaucratic endeavor was strictly confined to set the pace by the example of a few projects. For when all is said and done, most of the social overhead capital created during this period still derived from private initiative; a goodly portion of it the result of the profit motive (as in the aforementioned case of new housing) — the rest due to communal action on the part of some religious denomination.²⁴⁵

In either instance, the rich traders were the moving spirits. They were the ones who possessed the requisite funds to be channelled into investments and into charitable foundations. Besides, more so than other mortals, they had the spare time and the organiz-

²⁴² It should be remembered that Alhaus took the side of the linen weavers when they tried to improve their bargaining position *vis à vis* their employers; see above, p. 57. For a critical stance regarding Alhaus, see ADOLF WERTH, *Die Verhaftung des lutherischen Pastors Spitzbarth durch Richter Alhaus in Barmen*, «*Monatsschrift des Bergischen Geschichtsvereins*», vol. 7, no. 5, May 1900, pp. 98-99. Also see *Abgezwungene Beschwerung der Kommerzianten und Fabricanten des Amtes Barmen wider Richter Alhaus Bedrücker und Verfolger - 6 März 1759*. ADOLF WERTH (editor), «*Monatsschrift des Bergischen Geschichtsvereins*», vol. 7, no. 7, July 1900, pp. 143-144.

²⁴³ V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 95-96.

²⁴⁴ V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, p. 98.

²⁴⁵ The Andreaï brothers, for example, provided houses for their workmen, particularly for those whom they recruited into Mülheim, see FRANZ THEODOR CRAMER, *Gewerbe, Handel und Verkehrswesen der Freiheit Mülheim a. Rh. im 18. Jahrhundert*, p. 85, fn. 3.

ing experience to get things done. Most important of all, these « wor-thies » sensed more keenly than their less affluent contemporaries the importance of adequate social amenities in preserving and cementing the cohesiveness and stability of society. Thus in the Wupper valley an instinctive understanding of these social relationships was, so it appears, as significant a factor in upholding civic responsibility as the prevalence of a religious code that stressed the duties of the elect.²⁴⁶

In 1744 a Lutheran Church with a preacher of its own was provided for rapidly growing Wichlinghausen.²⁴⁷ Four years later, booming Lower Barmen, still part of the Elberfeld parish, was granted, by the elders of the local church, the necessary funds to set up a reformed Lutheran School and hire a teacher. During the same period, communal improvements of a secular provenance made similar headway; in 1747 Barmen strengthened its fire fighting service by purchasing new equipment while in 1754 a new bridge was built, crossing the Wupper from the southern part of the recently subdivided Dörnerhof. By the standards of the day, all these accomplishments were not insignificant; they betokened a vibrant society doing everything possible to maintain its vigor.²⁴⁸

The resilience of export sales provided the obvious basis for the general buoyancy which, as mentioned earlier, was so dominant a feature of the Wupper valley throughout the 1750's.²⁴⁹ At the time,

²⁴⁶ Most of the histories of these entrepreneurial families are replete with stories about the good deeds rendered by successive generations of the particular clan. The thrust of these chronicles is probably correct; but a *caveat* is in order. Since most of these histories are written by descendants, the accounts regarding the respective ancestor's purity of motives and magnitude of charitable activities must be taken with a grain of salt. To quote Dr. Johnson, that in the composition of « lapidary inscriptions, a man is not under oath ».

For example, the father of the aforementioned brothers Wichelhausen, Peter Wichelhausen, donated in 1710 one lot on his property for the new church to be built on it. J. V. BREDT considers this supposed act of charity as a « ...masterstroke... In so doing he geared the extension of *Gemarkte* into his property and thus his speculative ventures reaped a very rich harvest... ». See *Studien zur Rechtsgeschichte von Barmen*, p. 161.

²⁴⁷ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 232 and pp. 242-243.

²⁴⁸ V. P. SONDERLAND, *Die Geschichte von Barmen im Wupperthale*, pp. 90-91, p. 93 and p. 98.

²⁴⁹ For some comments on the boom see K. WÜLFRATH, *Bänder aus Ronsdorf*, pp. 20-21.

the demand facing the area's manufactures, notably in France and in the overseas colonies, continued to rise. The gains of the local merchants were correspondingly large, especially so among those traders who sought their outlets, with traditional regularity, at the Frankfurt. M. and Leipzig fairs.²⁵⁰ According to an account for 1776, there were by then 300 mercantile houses doing business in Frankfurt; out of this total 240 were of German origin and no less than 50 of these hailed from Elberfeld and Barmen.²⁵¹

In 1756, the outbreak of hostilities was to cast a shadow upon this progressive and prosperous scene. That the ruling Duke should have involved himself in the Seven Years' War on the side of the Austrians was to cause his Berg subjects no end of trouble. Periodically, Hanoverian and particularly Prussian troops occupied the twin cities as enemy territory, demanding quarters and sequestering resources without consideration for the inhabitants. Worse still on one occasion Frederick the Great's soldiers manhandled Judge Alhaus and then took him hostage with some of the leading merchants in the two communities. By such Draconian means, the Prussians hoped to expedite payment of a 15000 Rthlr. levy they had imposed upon this valley.²⁵² Besides, even the presence, in either town, of French troops, who ostensibly came as allies, proved a nuisance. Finally, there was at times mention of sagging markets due to dislocation though details on this point have never been forthcoming.²⁵³

But in spite of all these trials and tribulations, most local historians seem to agree that the war and its consequences did not

²⁵⁰ F. KERSTEN, *Aus der alten Wuppertaler Chronik*, pp. 61-65 and H. F. MACCO, *Geschichte der Familie Wuppermann*, pp. 63-64. According to Macco, even as distinguished a merchant as Hildebrand Wuppermann still walked to the Frankfurt fair during the 1750's.

²⁵¹ A. DIETZ, *Frankfurter Handelsgeschichte*, vol. I, tables on pp. 96-97.

²⁵² Most accounts of the Seven Years' War in the Wupper Valley derive from Beckmann's diary. See K. SPANNAGEL, *Barmen im siebenjährigen Kriege - Eine Beckmannsche Chronik*, pp. 130 ff. Also see V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 99-100. For some of the experiences of the hostages in their captivity, see J. V. BREDT, *Geschichte der Familie Bredt*, pp. 64-65. Two members of the Bredt family were among them.

²⁵³ For a contemporary account as to how the Wupper valley inhabitants handled the French troops that were to stay in their midst, see F. KERSTEN, *Aus der alten Wuppertaler Chronik*, pp. 66-67.

in any basic way interfere with the quiet, solid advance of this industrial economy.²⁵⁴ Old established businesses forged ahead since the decline in sales does not appear to have been serious. Nor was the area to suffer from destruction; though troops, friend and foe, regularly passed through the region, neither the valley nor its immediate vicinity became a battlefield. And judging by the absence of contemporary comment, local firms must have been sufficiently strong and prudent to have escaped any major losses arising from the financial crisis that gripped most commercial centers in the very year that peace had been declared.²⁵⁵

In 1763 bankruptcies spread through Europe like an epidemic, undermining credit and hampering the flow of trade. But its short duration compensated, at least partially, for the virulence of this deflationary phase. Besides, a few of these defaults actually produced some redeeming features: they eliminated, with one swoop, the speculative excesses and patterns of misinvestment that are characteristic by-products of a prolonged period of hostilities. Thus within twelve months the downward trend was reversed and the stage was set for a postwar boom the proportion of which seemed unbelievable to contemporaries.²⁵⁶

The Wupper valley was more than ready to share in this phenomenal expansion. In Elberfeld the manufacture of Siamoisen, bed spreads and striped linens, which had been so successfully introduced into this city during the 1740's and 1750's was given and additional boost by the buoyancy of world markets.²⁵⁷ In fact, Elberfeld's rate of industrialization reached so feverish a pitch as to spill over into the neighboring communities. At the time, Johann Schuchard became Barmen's first merchant-manufacturer of Sia-

²⁵⁴ *Ibid.*

²⁵⁵ This has been emphasized by K. LOHMEYER, *Die Barmer Familie Keuchen und ihr Grundbesitz im 18. Jahrhundert*, p. 113.

²⁵⁶ See BRUNO KUSKE, *Gewerbe, Handel und Verkehr*, in H. AUBIN and others, « Geschichte des Rheinlandes von der ältesten Zeit bis zur Gegenwart » (Essen: G. Bae-decker, 1922), vol. 2, p. 189.

²⁵⁷ On the post-war boom in the Wupper valley, see W. LANGEWIESCHE (editor), *Geschichte und Beschreibung dieser Doppelstadt*, p. 240. For an account of the boom in the Western world vide A. H. JOHN, *War and the English Economy*, in « Economic History Review », 2nd series, vol. VII, no. 3 (1955), esp. pp. 343-344.

moisen.²⁵⁸ Soon, others followed his lead. Subsequently, the weaving of fabrics was further extended into Lüttringhausen, Hückeswagen and Wermelskirchen.²⁵⁹

Barmen was no less fortunate in its ability to enlarge and diversify the output of its traditional and by then well-known activities, the bleaching of yarn and the production of various types of ribbons, braids and tapes. Here again, industrial growth was to overflow into Ronsdorf, Schwelm and some of the other adjacent villages.²⁶⁰ All in all, the whole Berg area and even districts of the Mark became, during this period, extended parts of the Wupper valley economy.

In 1767 Carl Theodor promised to visit the twin cities. In anticipation of this event, the Garnnahrung prepared a census of industrial activity and employment:

STATE OF WUPPER VALLEY INDUSTRY - 1767²⁶¹

1500 <i>Siamois</i> looms	the number employed in this sector including factory operatives, weavers and spinners (12 people assumed per loom)	18000
2000 <i>Linen</i> looms	specializing in striped linens (the so-called Bonten) of middling and extra fine quality, destined for the East India market (assuming four people employed per loom)	8000
2000 <i>Ribbon</i> looms	(assuming three people per loom)	6000
100 <i>Bleaching establishments</i>	(Six workers per plant)	600
	Supposedly bleaching at that time 40000 cwts. of year.	
	Dyers and their Journeymen	200
	Factory Hands	500
	Knitters and spinners of waste silk	600
Total number of those engaged in Wupper valley manufacture		33900

²⁵⁸ V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 101-102 and W. LANGEWIESCHE (editor), *Geschichte und Beschreibung dieser Doppelstadt*, p. 270.

²⁵⁹ E. STRUTZ, *Bergische Wirtschaftsgeschichte*, p. 373, emphasizes the expansion of the Siamois manufacture into Lüttringhausen und Hückeswagen. For Wermelskirchen, see H. V. STEIN, *Die industrielle Entwicklung der Stadt Wermelskirchen*, p. 2.

²⁶⁰ See V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 101-102, and E. BÖHMER, *Geschichte der Stadt Schwelm*, pp. 117-118.

²⁶¹ W. LANGEWIESCHE, *Beschreibung und Geschichte dieser Doppelstadt*, p. 271.

On the face of it, the above figures appear like a gross exaggeration, considering that during this period the total number of Wupper valley inhabitants did not exceed 20-25.000 and that the whole population in the Duchy of Berg was barely 210.000.²⁶² Yet, the statistics may not seem quite as farfetched if viewed against the historic background within which they were computed. As men of affairs, the *Garnmeister*, while preparing this report, took their environment for granted and never bothered to spell out the *modus operandi* of the domestic industry which endowed the categories of the above account with a very specific meaning.²⁶³

The heading of the table is a case in point. Given the prevailing mode of production, economic progress and the continued dispersal of manufacturing activity over an ever wider area were twin phenomena of the same process. This is why in this instance « Wupper valley industry » did not refer to the two cities only, but to a broader region encompassing all those communities where weavers and spinners, working for Elberfeld and Barmen merchants, happened to be located.²⁶⁴

To clarify matters further, it is equally relevant to emphasize that within the framework of a domestic industry the family constituted the basic work unit. Consequently here as elsewhere under similar circumstances, women and children performed the auxiliary chores for the male weaver. That these ancillary duties did not amount to full time work in the presently accepted sense of the term hardly needs further elaboration. Even for many a cottier, who wove ribbons or coarses fabrics, these non-agricultural pursuits were only a by-employment helping him to eke out a modest existence. Along those lines, the last category of the above table, « knitters and spinners of waste silk » is particularly symptomatic, since, at that time, tasks of this sort were left to the weak and the aged.²⁶⁵

²⁶³ The interpretation of the statistical table (both in this as well as in the subsequent three paragraphs) follows closely Duncan Bythell in his effort to put into historic perspective the seemingly exaggerated figure as regards the number of handloom weavers in the England of the 1830's. *The Handloom Weavers - A Study in the English Cotton Industry during the Industrial Revolution* (Cambridge: At the University Press, 1969), pp. 54-65.

²⁶⁴ See below.

²⁶⁵ For this period, the rural atmosphere of these ribbon and linen-cotton weavers

With these qualifications in mind, the statistical account strongly suggests that the employment figures presented in this table apply to the whole Duchy of Berg and include those engaged in the textile trades plus all their dependents. And given such assumptions, the estimate that almost one-sixth of the Duchy's population was, in one way or another, connected with the production of textiles may still seem somewhat high; but it no longer seems quite so incredible.²⁶⁶

During the years 1773-1774 one of the Duchy's senior officials, Friedrich Heinrich Jacobi, prepared a report on the State of Jülich-Berg industry.²⁶⁷ In essence, the document corroborates the *Garnmeister's* earlier estimates. According to Jacobi, the number of looms being operated in the production « Siamaisen » and striped linen fabrics (the so-called « Bonten ») reached 4000 at the peak of the boom, fell to 3000 in a recession and stood at 3500 during half way points of the business cycle. Taking the latter figure to be the mean and reckoning that per year and per loom 14 pieces were being produced, the total annual output in this branch of the textile trade supposedly amounted to 49000 pieces which were exported for 1,542142 Rthlr.²⁶⁸ At the same time, 280 looms were in operation throughout the Duchy, producing bed quilts worth 135124 Rthlr. of annual exports.²⁶⁹

Turning to yarn bleaching and the making of ribbons and thread, Jacobi estimated that 2400 ribbon looms were being plied during brisk periods and 1600 in a slump. Again, Jacobi assumed the

had been emphasized in the case of neighboring Schwelm; E. BÖHMER, *Geschichte der Stadt Schwelm*, pp. 118-119.

²⁶⁶ A somewhat similar development is to be observed in Eighteenth century Norwich; Paul Mantoux writes: « Yet Norwich, at the height of its prosperity, had at the most 30,000 to 40,000 inhabitants. How then is it possible to credit those witnesses who affirmed that the industry of Norwich provided occupation for 70,000 to 80,000 persons? It overflowed into the surrounding country... ». *The Industrial Revolution in the Eighteenth Century - An Outline of the Beginnings of the Modern Factory System in England*, Rev. Edition; translated by Margorie Vernon (New York: Macmillan Company, 1927), p. 54.

²⁶⁷ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi über die Industrie der Herzogtümer Jülich und Berg aus den Jahren 1773 und 1774*, « Zeitschrift des Bergischen Geschichtsvereins », vol. 18 (1882), pp. 1-27.

²⁶⁸ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, appendix 4, pp. 30-33.

²⁶⁹ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, appendix 5, pp. 34-35.

middle figure of 200 looms to be the average, generating, together with the sale of bleached yarn, annual exports of 1,590.344 Rthlr.²⁷⁰ This, of course, would suggest that, at this stage, in value terms the manufacture of fabrics was locally almost as important as the output of the traditional products — « narrow wares » and bleached yarn. All in all, during this period, yearly exports of Berg textiles came to 3,267664 Rthlr.²⁷¹

But once these figures have been cited in support of the *Garnmeister* able it becomes more important to stress the virtues of the Jacobi survey itself. Within this area, it is a document of historic significance. Virtually all the cost figures presented by Jacobi in the appendices are put in the context of all kinds of marginal comments and additional information which illuminate, in a most striking manner, the Wupper valley industrial structure and indirectly the social setting of this era as well.

For example, the aforementioned 49000 pieces of fabric produced during that year required for use as warp 345550 Rthlr. worth of fine quality yarn... « imported from Brunswick, Hanover, Hildesheim and even from Stade... and carried hither as return freight by Limburg and Aachen haulage men journeying home from the Brunswick fair... even those carriers who had originally attended the Leipzig fair came back via Brunswick... thus the greater the attraction to attend these fairs, the lower the transportation costs incurred by the Berg merchants ».²⁷²

At the same time, lesser quality yarn (the so-called « Moltgarn ») to be used as weft and valued at about 147000 Rthlr. was brought here from »... Osnabrück, Ravensberg, Melle and Lübeck... ». Besides, to meet the needs of this manufacturing branch 2600 bales of raw cotton worth 250,000 Rthlr. (c.i.f.) were imported from Holland. In turn, the Wupper valley merchants put out this cotton to have it spun into yarn at a cost of 208,000 Rthlr. According to Jacobi one half of this sum was spent on spinners « abroad », i.e.

²⁷⁰ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, appendix 3, pp. 26-29.

²⁷¹ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, appendix 6, p. 36.

²⁷² W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, pp. 30-32.

on those living in the Prussian Mark, in the principality of Schwarzenberg and the Cologne electorate; the other half was spent on Berg people.²⁷³

The ribbon and thread manufacture and the bleaching trade required 656,566 Rthlr. of fine yarn, 580,555 Rthlr. of lesser quality yarn and 175,000 Rthlr. worth of yarn to be bleached and made into thread. In addition, Jacobi indicated that annual earnings per ribbon loom came to 200 Rthlr. Thus total yearly income reached 400,000 Rthlr. which were exclusively drawn by Berg labor. This would suggest that in terms of providing employment, this sector maintained within the Wupper valley a preeminent position.²⁷⁴

Jacobi's enumeration of the various export markets where Berg textiles found an outlet offers no surprises... « the thread is being sold in Brabant, France and England, the linen tapes and the various other kinds of ribbons are sold partly throughout the (German) Empire, partly in Holland... striped linens ('Dobbelstein') and 'Checks' ('Siamoisien') are exported partly into the (German), Empire, partly into Holland... while most of the bed quilts find their customers in the Empire... ». Complementing, as it were, these observations on the different export markets, Jacobi also calculated the « net surplus » — the net foreign exchange earnings — of each textile branch: 616343 Rthlr. in the case of the ribbon and yarn trade, 569303 Rthlr. in the case of fabrics and 16152 Rthlr. in the manufacture of bed quilts. The total came to 1,201,868 Rthlr.²⁷⁵

Computations of this sort, including comments to the effect that some industrial activities might be carried on « at the expense of the foreigner », betray the author's mercantilist leanings. Given the period, such an outlook is not surprising except that in this instance these *étatist* views were at odds with the Physiocratic doctrine Jacobi expounds at length in his introductory remarks. In view of this contradiction one is led to surmise that as *philosophe* and man of letters, Jacobi's understanding of the economic process was at

²⁷³ *Ibid.*

²⁷⁴ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, pp. 26-29.

²⁷⁵ W. GEBHARD (editor), *Bericht des Hof-Kammerrats Friedrich Heinrich Jacobi*, appendices 3, 4, 5, and 6.

best superficial. Nor can one avoid the impression that for all his professions of liberalism, Jacobi remained true to his role as the conservative and parochial bureaucrat of a petty principality.²⁷⁶

But the lack of a coherent framework does not detract from the aforementioned value of this survey. Jacobi dwells with authority if not with perspicacity on some of the key problems characteristic of the contemporary scene. To judge by the space allotted to the issue, he must have considered the bleaching monopoly of the *Garnnahrung* a principal deterrent to the Duchy's progress. Whatever its original utility as an agent of industrial growth, Jacobi demonstrates, with the aid of statistics, that by the mid-18th century this monopoly had degenerated into an abuse.²⁷⁷ In fact, by then many of the local merchants were disregarding *Garnnahrung* rules and had most of the cotton and linen yarn bleached outside the Berg area.²⁷⁸

Jacobi suggests that the lesser members of the *Garnnahrung* were quite eager to see this monopoly abolished. However, he does not elaborate why, for example, the Barmen section of the *Garnnahrung*, which specialized in bleaching yarn, should have been the one to favor the dismantling of those regulations while the Elberfeld merchants, who honored these restrictions in the breach, insisted upon their preservation.²⁷⁹ The clue to this paradox, as one recent

²⁷⁶ FRITZ SCHULTE, *Die wirtschaftlichen Ideen Friedrich Heinrich Jacobi*, in «Düsseldorfer Jahrbuch», vol. 48 (1956), pp. 280-282.

²⁷⁷ See especially appendix 2 in W. GEBHARDT (editor), *Bericht des Hofkammerrats Friedrich Heinrich Jacobi*, where the considerable lower costs (especially labor costs) prevailing in the neighboring Mark are emphasized. Because of these lower production costs the sale prices of the bleached yarn being offered by the Mark merchants is about 5 to 6 per cent below the sales price in Elberfeld. According to A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 172. The difference in labor costs between the Mark and the Wupper valley came to almost fifty per cent.

²⁷⁸ However, J. V. BREDT, *Die Lohnindustrie*, p. 32 suggests that the occasional protests about Mark competition on the part of the Barmen bleachers were exaggerated. It was not true that the Oberbarmen bleachgreens were bare. Rather «the Mark bleachers prospered not because of low wages but because the Berg bleachers were fully occupied». In fact, the Barmen bleachers were so busy that they themselves put out yarn to be bleached for their own account in the Mark. It need hardly be emphasized that the absorption of as yet unutilized land located in the vicinity into the industrial orbit reflects a familiar pattern of economic progress.

²⁷⁹ This has been emphasized by A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 73. According to Thun, Barmen no longer considered the bleaching of yarn its staple industry.

historian points out, is to be sought in the particular position hitherto enjoyed by the Elberfeld merchants. These particular entrepreneurs did not really care about the bleaching monopoly *per se*; what they feared was a challenge to their mercantile pre-eminence by other communities in the Duchy where businessmen, such as those in Ronsdorf, might gain in strength on the basis of a thriving bleaching industry.²⁸⁰

There are some historians who have argued that by the time Jacobi mounted his attack on the bleaching monopoly he was already flogging a dead horse.²⁸¹ Indeed, one might generalize and say that whenever Jacobi delivers himself of a supposedly weighty pronouncement and a dire prophecy, his observations are more indicative of his *Weltanschauung* than of the local scene.

« By having perfected their industry, Elberfeld and Barmen achieved within a few years a high level of prosperity accompanied, as always, by a growing population. But should this demographic upsurge not find adequate space, then those towns, like luxuriant plants, will choke to death in their own juice... ».²⁸²

Whatever this may mean, expressions of this sort suggest, above all, a man fearful of the changes being wrought all around him. However, Jacobi's asides, meant to buttress some of the dubious forecasts, provide useful insights into Wupper valley developments:

« Until recently Elberfeld's vegetable gardens sufficed to feed the local burgers, now, twice weekly scores of peasants from the Düsseldorf district travel there to sell their products. Also, most of the rye consumed in Elberfeld gets there via Düsseldorf... ».²⁸³

²⁸⁰ E. STRUTZ, *Bergische Wirtschaftsgeschichte*, p. 363 and J. V. BREDT, *Die Lohn-industrie*, pp. 31-32.

²⁸¹ H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 46.

²⁸² Food prices are steadily on the rise... only twenty-five years ago one paid in Elberfeld 5½ Rthlr. for 100 lbs. of beef, now 8½ to 9 Rthlr.; for 1 lb. of pork then, 3½ to 4 Stbr. now 8 to 9 Stbr.; for 1 lb. of butter 5 Stbr. now 8 to 9 Stbr... and for a 12 lb. loaf of rye bread 8 to 9 to 10 Stbr, and now even in good years 13 to 15 Stbr.; during the last three years the loaf of bread reached 18 to 25 Stbr. See W. GEBHARD (editor), *Bericht des Hofkammerrats Friedrich Heinrich Jacobi*, p. 13. (Take note: 1771, 1772, 1773 were years of famine prices). Food imports from Jülich into the Berg area — into the twin cities and into Solingen — are also emphasized by G. V. GÜLICH, *Geschichtliche Darstellung des Handels*, vol. 2, p. 271.

²⁸³ W. GEBHARD (editor), *Bericht des Hofkammerrats Friedrich Heinrich Jacobi*, p. 16.

And turning to the corollary of soaring food prices, Jacobi notes that in the Wupper valley « the value of an ordinary peasant holding has increased by 50 per cent since the years 1740-1750... Besides, since the end of the war 130 new houses have been built in Elberfeld and Barmen... ». Quite obviously, the course of these developments²⁸⁴ was also responsible for the soaring price of real estate. This is why, according to Jacobi, « progress in the Berg area is no longer feasible. Population must either stagnate or emigrate ».

Similarly, Jacobi's reactionary and pseudo-aristocratic biases are reflected in his distaste for the rising merchants who were to concentrate in their hands ever larger aggregations of capital. Jacobi senses that the increasingly unequal distribution of wealth is a by-product of progress. But as he alludes to the « rentiers as greedy vermin, a veritable locust... » he also senses that the evolution of this « state of affairs is not generally understood » (i.e. in the area).²⁸⁵ Jacobi was particularly incensed about two bachelor brothers (the above-mentioned brothers Wichelhausen), residing in Gemarke, « who virtually own the whole district » and supposedly exploit their monopolistic position when selling off individual lots to potential house owners.²⁸⁶

Usually, a conspicuous exception underscores a general rule. At least with respect to one prediction Jacobi was proven right. He noted that the Wupper valley was eminently qualified to become a silk manufacturing center.²⁸⁷ In fact, as early as 1770, J. H. Simon, previously a foreman of the Andreae Brothers in Mülheim, tried to start a silk industry in Elberfeld. His initial efforts were to be stymied by the authorities and it was not until 1775, after the Andreae monopoly in the Duchy of Berg was annulled, that Simon was able to launch a thriving manufacture of silken wares. His success or at least the promise of success must have been enticing

²⁸⁴ W. GEBHARD (editor), *Bericht des Hofkammerrats Friedrich Heinrich Jacobi*, pp. 16-17.

²⁸⁵ *Ibid.* Also see J. V. BREDT, *Die Lohnindustrie*, p. 34, and W. SCHUMACHER, *Inter-suchung über die Entwicklung der bergischen Seidenindustrie*, pp. 12-13.

²⁸⁶ *Ibid.*

²⁸⁷ *Ibid.*

to contemporaries; promptly, two other firms, Peter Carl Weber and J. H. Funcke, followed Simon's lead.²⁸⁸

The fledgling trade seems to have experienced no difficulties in attracting the skilled labor needed to instruct the local workmen in the new techniques; these master craftsmen came from Hanau, Crefeld, and France.²⁸⁹ Nor was marketing of the new products to prove a problem. The silken handkerchiefs, scarves and fabrics found ready outlets in the German lands, Holland and America despite competition on the part of French and Swiss producers.²⁹⁰

At about the same time, Caspar Engels (Frederick Engels' great grandfather) pioneered in this valley the making of various types of fancy lace which within a short period were to emerge as one of Barmen's principal exports.²⁹¹ And shortly thereafter, J. H. Bockmühl invented and then applied within the area the « Riemenstuhl », an improved version of the ribbon loom powered by water and weaving diagonally linen tapes. In due course, the new contraption permitted a lucrative expansion of this particular manufacture.²⁹²

Progress, in fact, was all pervasive throughout the Wupper valley during the Seventies. New firms responsible for all sorts of innovations were being established by various newcomers. Some of these entrepreneurial types were recent immigrants, others scions of old established families (as were Engels and Frowein) who so far had not participated, at least not prominently, in the region's secular *Wirtschaftswunder*.²⁹³ But whatever their origins, the emergence of « new men » points unmistakably to the persistence of an

²⁸⁸ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 75-76.

²⁸⁹ *Ibid.*

²⁹⁰ *Ibid.* The Swiss supposedly enjoyed lower wages and lower interest rates, the French benefitted from lower raw material costs.

²⁹¹ Caspar Engels imported three so-called Harlem ribbon looms. See H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 46. According to GUSTAV MAYER, *Friedrich Engels - Eine Biographie* (Hague: Martins Nijhoff, 1934), vol. 1, pp. 4-5. Johann Caspar Engels is supposed to have started business as a yarn dealer with 25 Rthlr. When he eventually became one of the community's largest entrepreneurs, he assisted his weavers to buy their homes and gardens.

²⁹² V. P. SONDERLAND, *Die Geschichte von Barmen im Wupperthale*, p. 119; E. SRUTZ, *Bergische Wirtschaftsgeschichte*, p. 369 and E. STRUTZ, *175 Jahre Abr. Frowein - Abr. u. Gebr. Frowein A. G. - Ein Beitrag zur Wuppertaler Wirtschaftsgeschichte* (Koblenz: n. p., 1938), p. 25.

²⁹³ *Ibid.*

« open society », the hallmark of a dynamic economy. In turn, so propitious a configuration of the social structure was at least partially responsible for the magnetism displayed by the twin cities in absorbing into their manufacturing sphere new products and new techniques.²⁹⁴

Moreover, the vigor of this forward thrust was notable for some of the difficulties it had to surmount. Inundation and a poor harvest in 1771 and a cattle epidemic in 1772 caused famine prices²⁹⁵ while in 1775 the consequences of the American War of Independence disturbed the Amsterdam market and led to a decline in demand for goods traditionally offered for sale by Elberfeld and Barmen.²⁹⁶ That the twin cities should have been able to cope with such irritations was as much a tribute to their affluence as it was to the resilience and flexibility of their industrial setting.²⁹⁷

Investments in the infra-structure and enlargement of the area's social capital were to round out the buoyant scene. Since 1763 the authorities had constructed about 100 kms of new roads at a cost of almost 50000 Rthlr.²⁹⁸ During the same era several new bridges came to span the Wupper while local worthies busied themselves building new churches and schools. Finally, between 1775 and 1786, 200 new houses were to dot the skyline.²⁹⁹ Is it too farfetched to surmise that Goethe was reminiscing about a view from the surrounding hills looking down into the Wupper valley when he wrote, following a visit to the Berg area in 1774:

²⁹⁴ *Ibid.* and below, p. 78.

²⁹⁵ « During August of this year 1771 the bread grain was in short supply and because of the rising waters there was tension among burghers and bakers. The price of rye was very high and already had been raised several times... ». F. KERST, *Aus der Alten Wuppertaler Chronik*, pp. 71-72 and pp. 76-77.

²⁹⁶ For some of the difficulties caused by the sudden decline in exports, see J. V. BREDT, *Die Lohnindustrie*, p. 52.

²⁹⁷ « Considering the momentum of this expansion these calamities... became bearable ». See W. LANGEWIESCHE (editor), *Geschichte und Beschreibung dieser Doppelstadt*, p. 241.

²⁹⁸ However, as J. Hashagen points out, the individual communities had to foot the bill of this construction program; see J. HASHAGEN, *Politische und Religionsgeschichte des Bergischen Landes*, in J. HASHAGEN (editor), « Bergische Geschichte », p. 192.

²⁹⁹ J. HASHAGEN, *Politische und Religionsgeschichte des Bergischen Landes*, p. 203 and W. LANGEWIESCHE (editor), *Geschichte und Beschreibung dieser Doppelstadt*, p. 241. A new stone bridge crossing the Wupper at Heckinghausen was put into operation in 1775.

« ...The bustle and affluence of neighboring town and villages contributed in no small measure to enhance a feeling of inner contentment. The very sight of this busy district suggested peace and contentment because here the useful seemed the product of order and cleanliness. And in contemplation of all this we whiled away a few happy days... ».³⁰⁰

Wupper valley industry continued along the path of expansion throughout the 1780's. During this decade virtually every branch of local commerce prospered and grew. Led by the spectacular advances made in the output of « Siamaisen », yarn bleaching, ribbon and lace making and the manufacture of linen fabrics registered almost equally impressive gains. In this way solid progress on so broad a front not only helped to create a framework of potential « linkages » but also sparked the will, by virtue of rising profits and heady expectations, to make the most of these advantages. Thus a drive for continuous innovation remained an integral part of the district's dynamic economy.³⁰¹

Along those lines two such efforts stand out. At the time, the twin cities witnessed the initial imports of mechanically spun cotton yarn from England, an event which soon afterwards prompted within this area the first attempts to produce cotton pieces, the so-called calicoes.³⁰² Even more significantly, local preoccupation with the finishing processes of the textile trades led in turn to the introduction of the Turkish red dye industry. Supposedly brought hither, in 1785, by a Saxon craftsman, the new venture became, in a very short time, one of the Wupper valley's most celebrated activities.³⁰³

In 1792, F. W. Wiebeking published a semi-official account, a kind of sequel to the Jacobi Report, about economic and social life in Jülich and Berg. And trying to survey, with the aid of some statistics, the material conditions of the Duchy of Berg in particular, the author waxed quite enthusiastic:

³⁰⁰ WILHELM REES, *Kunst-und Kulturgeschichte*, in J. HASHAGEN (editor), « Bergische Geschichte », p. 510.

³⁰¹ E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatengeschichte vom Jahre 1742 bis 1792 vorzüglich in Rücksicht auf die Herzogtümer Jülich und Berg* (Heidelberg and Mannheim: Schwan and Götz, 1793), pp. 18-21.

³⁰² V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, p. 119.

³⁰³ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 74 and p. 273.

« I was astounded by the prosperity of the manufactories, by the diligence and well being of the inhabitants; and I discovered on probing the development of all this activity, that most of the rise in industry and commerce had occurred during the last fifty years... ».³⁰⁴

According to Wiebeking, Berg boasted by 1792 some 7600 looms devoted to the manufacture of Siamois and various types of striped linens; 3400 of these looms were located in the surrounding communities and 4200 in Elberfeld-Barmen proper.³⁰⁵ However, Wiebeking admitted that the latter figure was taken from a 1780 census and that in the twelve years since then the number of looms in the twin cities had probably increased. At the same time, Elberfeld and Barmen boasted some 2540 ribbon looms at work while the woolen cloth manufacture of Lennep Hückeswagen, Wipperfürth, Wermelskirchen, Langenberg, Radevormwalde etc. claimed 285 looms in operation. Finally, there were in the valley about 150 bleaching establishments producing an annual output of 40,000 cwts. of bleached yarn.³⁰⁶

The Berg textile trades provided work for more than 40,000 people. Even with the reservations referred to earlier as regards employment statistics in a domestic industry, this figure is still impressive considering that the total population of the Duchy of Berg was about 261,000 at the time.³⁰⁷ Specifically, during this period, in the parishes of Elberfeld and Barmen the number of employed in the textile production — i.e. in the manufacture of Siamois, linens and bed spreads, in the making of ribbons and in the finishing and marketing branches of this industry — reached 20,500 and generated an output valued at 3,820,791 Rthlr.³⁰⁸ The same figures with respect to the hand spinning of cotton yarn in the

³⁰⁴ E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatengeschichte*, p. 1.

³⁰⁵ For this and the following figures see the table produced by E. F. Wiebeking, *Beiträge zur Kurpfälzischen Staatengeschichte*, p. 5.

³⁰⁶ See E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatengeschichte*, p. 21. H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 44 points to some discrepancies in the statistical information given by contemporaries with respect to yarn bleached in the area. Probably, the difficulty of accounting for yarn bleached in the Mark for Wupper valley dealers may be the source of these difficulties.

³⁰⁷ E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatengeschichte*, see table, p. 5.

³⁰⁸ *Ibid.*

communities of Steinbach, Hückeswagen and Muth were 7244 people and 386,000 Rthlr. and in the woolen manufacture of the aforementioned Berg townships 2804 operatives and 1,036,070 Rthlr. And the number of those engaged in the Siamoisien manufacture outside the twin cities — in Lennep, Radevormwalde, Luthringhausen, Wipperfürth, Ronsdorf and adjacent villages — stood at 6800 and the total value of production at 1,382,000 Rthlr.³⁰⁹

Though on Prussian territory, Schwelm fared equally well. Political frontiers seemed irrelevant in the face of this boom. Having originally developed as a geographic extension of Elberfeld — Barmen activities, as a kind of satellite economy, expanding Schwelm industry became, in the course of the 18th century, increasingly independent. By the 1780's indigenous entrepreneurs managed substantial businesses manufacturing Siamoisien, linen and woolen fabrics and, ever since the 1750's, even ribbons. Firms like Sternenbergr produced a wide assortment of goods for the French and Brabant markets and employed a labor force numbered in the hundreds and dispersed throughout Westphalia.³¹⁰

All the other indicators of this age point similarly towards a buoyant economy working at full capacity. This was especially true of the valley's ribbon manufacture. One contemporary account has it that the brothers Wichelhaus refused an order which promised them a return of 45 p.c. Apparently profit rates of 80 and 100 per cent were not considered exceptional during this period.³¹¹

³⁰⁹ *Idem.* E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatengeschichte*, see table, p. 19 and appendix E.

³¹⁰ E. BÖHMER, *Geschichte der Stadt Schwelm*, pp. 118-119. A *Garnnahrung* report of June 1783 complained about the rise of Schwelm's bleaching establishments. At the time the cost of bleaching a barrel of yarn in Schwelm came to 25 Louis d'Or. However, in Elberfeld, because of the higher price of coal and potash, it came to between 38 and 40 Luis d'Or. *Staatsarchiv Düsseldorf, Jülich-Berg II*, 1903. «Barmen und Elberfeld - Zwistigkeit zwischen der Garnnahrung und der Linnweberzunft 1781-desgl. mit Fabrikanten zu Ronsdorf betr. des Garnprivileg 1782-1783».

³¹¹ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 245. Also J. V. BREDT, *Geschichte der Familie Siebel*, p. 171 where one author is quoted as saying that the Brothers Eversten did not consider 300 p.c. profits on one transaction as «out of order». However, these inordinate profits must be viewed in their proper context. The risks involved in these transactions were considerable. More important, the period of realization, i.e. «the average period of production» was very long. In 1792 a Barmen merchant Johann Peter Schlickum tried to explain to the author-

Given these conditions and given the structure of Wupper valley industry in particular, it is not surprising that during this decade the leading merchant-manufacturers accumulated sizable funds. An extant account book belonging to the manufacturing firm of Wuppermann and Mueller in Barmen offers valuable insights into the nature and extent of its business during the years 1790, 1793 and 1799. In 1780 the net worth of this firm was 100,580 Rthlr. Not surprisingly, a substantial part of these assets was in the form of inventory; there were these inevitable shanks of yarn of varying quality bleached and dyed and either destined for export to distant markets or to be distributed for further manufacture among the weavers of Barmen and its environs, «to the North and East in Mark territory and perhaps to the West in the Elberfeld area».³¹²

Besides yarn, the inventory contained not only a wide assortment of «Barmen articles», which were the firm's stock in trade, but also soaps, dye stuffs, boilers, barrels and other tools and raw materials needed in production. Finally, one significant item in the asset structure was the credit outstanding to domestic weavers and customers. A partial list of the clientele survives; all the names on it are French, which would suggest that for this firm France was, at the time, an important, probably the most important outlet.³¹³

The accounts for 1793 and 1799 reflect a similar asset structure except that by then the net worth of this firm had risen, primarily because of an enlarged inventory of ribbons, to 145,629 and 157,400 Rthlr. respectively. These amounts demonstrate the affluence of this firm and its steady advance. By all accounts Wuppermann and Mueller was a solid successful enterprise and as such, according to Dietz, typical of the textile houses owned by Barmen's leading families, «von Eynern, Keuchen, Rittershaus,

ities the reasons for illiquidity. It took supposedly about «three years for capital invested to turn over». The first year, according to Schlickum, involved the manufacture of the product, the second year the sale of it and the third year the extension of credit, and final repayment. See *Staatsarchiv Düsseldorf, Jülich-Berg II*, 1805. «Acten zur Sache Ober-und Unterbarmener Garnmeisteren wider Johann-Peter Schlickum... 1792.

³¹² H. F. MACCO, *Geschichte der Familie Wuppermann*, pp. 74-76 and W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 120-126.

³¹³ *Ibid.*

Engels and others ».³¹⁴ Wiebeking was duly impressed by all this wealth:³¹⁵

« Because the local factories have enjoyed remarkable prosperity, the merchants have been handsomely rewarded for their diligence. Their fortunes have grown unbelievably these last fifty years. Millionaires can be found among them and the number of those possessing 100,000 Thaler cannot be insignificant. With respect to this I would like to cite a typical businessman's comment made by a now deceased merchant to a man still living: 'In my younger years a man worth 20,000 Thlr. was considered here (i. e. in Elberfeld) rich and was accordingly honored by us. Nowadays a man who has 100,000 Thlr. is not even esteemed...' ».

Again, as in previous decades, the industrial expansion of the 1780's was accompanied by a construction boom; roads were enlarged, additional bridges, churches, and schools were put into operation to meet, at least in part, the rising demands of a growing population. Similarly, land so far used for farming or bleaching was turned into subdivisions with streets lined with row after row of new houses.³¹⁶ But of all these new structures, the recently completed homes of the merchant-princes were the most conspicuous. By their size and elegance these palace-like dwellings stood out from those inhabited by lesser mortals, symbols of the eminence and power the local merchant-manufacturers had achieved by the end of the 18th century.³¹⁷ By then, even to a casual observer the Wupper valley's urban character and highly differentiated class structure had become quite obvious.

Also, more knowledgeable contemporaries were struck by the speed with which the bucolic, frontier-like atmosphere of this valley

³¹⁴ *Ibid.*

³¹⁵ E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatengeschichte*, p. 21-22.

³¹⁶ W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, pp. 243-244. Note especially the expansion and growth of the community of Wupperfeld. Also J. F. KNAPP, *Geschichte, Statistik and Topographie*, p. 184 and pp. 197-198. In Wupperfeld alone, 40 houses were completed between May 1778 and the end of 1785. Also V. P. SONDERLAND, *Die Geschichte von Barmen im Wuppertale*, pp. 117-118 and pp. 120-121.

³¹⁷ R. WICHELHAUS, *Geschichte der Familie Wichelhaus*, p. 156. where the chronicler Merken is quoted regarding the construction of those palatial mansions in the Vicarie and Hoffkamp, streets in Elberfeld, particularly during the period 1767-1787. Also see J. V. BREDT, *Studien zur Rechtsgeschichte von Barmen*, p. 165 where it is noted that the year 1781 saw the completion of one of the most « magnificent Rococo houses » in Barmen.

had been transformed into a teeming city. Writing at the beginning of the next century, a Rhenish author described these developments as follows:³¹⁸

« If the Duchy were to have in its midst an old man of 125 years, who in his youth had been intimately acquainted with the area and who now still remembers it, he indeed would be the embodiment of the history of almost all local industry, population and progress... Such an old man would know... that about 100 years ago the children of Elberfeld still twisted rope in front of the house doors and that sixty years ago Barmen seemed quite different from what it is now; there were cow pastures where presently yarn is being bleached ».

Population figures are hard to come by. However, qualitative observations originally made by contemporaries and subsequently corroborated by local historians seem unanimous in emphasizing the relationship that supposedly existed between the expansion of Berg manufacture and a demographic upswing. « Because of these factories », commented Wiebeking, « the increase in population was unbelievable ». This seems to have been as true of the adjacent villages like Wipperfürth and Hückeswagen as it was of the twin cities proper.³¹⁹

According to Haacke, Barmen's rate of population growth doubled during the second half of the 18th century; specifically, between 1747 and 1804 the number of its inhabitants rose almost threefold, from 3790 to 12,895.³²⁰ Recently, Wolfgang Köllmann, the leading authority in the field, elaborated upon this population explosion: « So the development of the crafts sparked off the process of immigration, which from then on determined the development of the population of Barmen... As early as the Eighteenth century, in the second half of which there were, at a rough estimate, for every three inhabitants born in Barmen about two migrants... ».³²¹

³¹⁸ JOHANNES SCHMIDT, *Geographie und Geschichte des Herzogthums Berg, der Grafschaft Mark, des Ruhr Departments und des... Herzogthums Limburg...* (Crefeld: Abraham ter Meer, 1804), p. 13.

³¹⁹ E. F. WIEBEKING, *Beiträge zur Kurpfälzischen Staatsgeschichte*, p. 19.

³²⁰ H. HAACKE, *Barmens Bevölkerung im XVII und XVIII Jahrhundert*, pp. 28-33. Between 1698 and 1747 the annual growth rate was 1.65 p. c. In the next fifty years it may have been as high as 2.5 per cent.

³²¹ *The Population of Barmen Before and During the Period of Industrialization*, in E. V. GLASS and D. E. C. EVERSLEY (editors), « Population in History » (London: Edward Arnold, Ltd., 1965), pp. 592-593.

This expansion would allow one to speculate that during the early 1790's Barmen claimed about 7000 in its midst. As for Elberfeld, a conservative estimate would put its size during the same period at close to 10,000. No wonder, outsiders were impressed by the Wupper valley as a metropolitan area of some 16 to 17,000 people.³²²

Writing in 1789 a Schwelm minister, Friedrich Christoph Müller, delivered himself of some very insightful observations concerning the local population and especially its demographic behavior as shaped by the secular boom of the area's domestic industry. Considering the consequence of the high price of food prevailing in and around Schwelm, Müller commented:³²³

« ...that the least productive day laborer, working for a farmer and receiving four to five meals a day, would consider himself as it were committed to the galleys, if he had to stand from morning to night, weaving day in and day out, and have no other sustenance but weak coffee, black bread and potatoes... ».

« This bare existence », Müller continued, « has affected the health of this manufacturing population in a most detrimental manner. Most of them have a haggard look. Few people seem well fed and pinkcheeked. Many, however, appear knockneed, rheumatic and bleary eyed. Many pale and haggard women are among them. In my opinion, much of this is due to the incessant consumption of coffee. And yet it is a beverage the manufacturing man cannot forego. It is simultaneously his food and drink... He imbibes it therefore four to five times a day. Nor do I consider the black bread (pumpernickel) these people eat as desirable... The crust is thick and devoid of all nutrients... It seems to contain none of the real flour which the bakers have largely reserved for the fancier rye bread destined for the table of the merchant... ».³²⁴

« ...However, it is curious that despite their weakly constitution the majority of these local women experience easy and uncomplicated births. Within two or three days after their confinement they are in sufficiently good condition to carry on with their domestic chores. Possibly this natural function comes more easily for women who are weak and whose muscles are

³²² According to W. GÜTHLING (editor), *Eine wehrkundliche Beschreibung des Bergischen Landes*, « Zeitschrift des Bergischen Geschichtsvereins », Elberfeld's official statistics for 1797 claimed 10,026 inhabitants, vol. 64 (1936-1937), p. 114, fn. 8.

³²³ FRIEDRICH CHRISTOPH MÜLLER, *Chorographie von Schwelm - Anfang und Versuch einer Topographie der Grafschaft Mark - 1789*.

³²⁴ *Ibid.*

flabby... It is therefore not surprising that in the homes of this manufacturing population children abound... ».³²⁵

« Many children », Müller notes, « are an asset for a family engaged in the domestic industry. From their sixth year they earn their keep spinning, sorting, sizing and winding... The only regrettable aspect of this state of affairs is the fact that the education of these children is much too neglected... Many adults are to be found here who have had no education and who have not been confirmed. In view of this lack of education, it would be desirable if in these local manufacturing districts one were to set up English Sunday Schools... ».³²⁶

Continuing his fascinating analysis of the causes and consequences of this demographic pattern, Müller observes that,

« ...Concern about feeding their children does not particularly worry these working people. They marry in haste and frequently. Illegitimacy is most rare since customarily nuptial vows are solemnized sometime between conception and birth. Marriages are entered into at the very early ages of 18 and 19 which easily explains within this area the continued increase in population... ».³²⁷

Finally, Müller turns to a consideration of the supply of housing and its impact upon family formation and fertility:

« ...The fewest families own their own homes. A whole house would be much too large for such a family. This is why four or five families... live in one house. Each renter seems to be satisfied with one room and an anteroom for which he pays about 15 to 20 Rthlr. per annum. And this circumstance, too, favors a growing population. Unlike young people in other regions, here engaged couples need not postpone their marriage because they lack house and yard where they would find shelter...

The latter advantage, considerable as it is, derives primarily from the use of coal as fuel. A coal oven needs no chimney and can without difficulty be put in each room because the smoke can be gotten into the open by way of an iron pipe put through the wall... ».³²⁸

³²⁵ *Ibid.*

³²⁶ *Ibid.* The above paragraph would support the demand and supply thesis regarding population growth advanced by SYDNEY COONTZ, *Population Theories and the Economic Interpretation* (London: Routledge and Kegan Paul, 1968).

³²⁷ *Ibid.*

³²⁸ *Ibid.* No less an expert than D. E. C. EVERSLEY comments in connection with the population dynamic in the Midlands during the same period: « To put the matter cautiously, we can say that the more elastic the supply of houses in a given economy, the fewer the obstacles to marriage », *A Survey of Population in a Area of Worcestershire from 1660 to 1850 on the Basis of Parish Registers*, in D. V. GLASS and D. E. C. EVERSLEY (editors), « Population in History », p. 407.

Within so limited a space as the Wupper valley, mounting population pressure tended to push up the cost of living more powerfully than heretofore. Rents rose and, most important of all, so did food prices as the area became dependent on grain, vegetable and meat imports from increasingly distant parts. The result of these long run forces at work was obvious. Over the long haul wages had to rise, a trend which in this particular decade was to be accentuated by a strong boom causing, temporarily at least, a labor shortage.³²⁹

In an age when, in terms of a decade, productivity improvements by way of new machines were practically insignificant, the prices of final products were most sensitive to changes in labor costs. In a similar manner, the impact of a wage change upon the industrial structure as a whole was equally considerable. This is why the centrifugal tendencies of some Wupper valley industries, initially observed in the mid-century, gathered momentum during the 1770's and 1780's. By then production of cheap goods dependent on very low wages could no longer survive in the expensive environment of the Wupper valley. Increasingly, Elberfeld and Barmen dealers were to feel these pressures and consequently transferred the manufacture of Siamois and calicoes across the Rhine, into the Gladbach-Rheydt district, where they established subsidiary firms for that purpose.³³⁰ At the same time, the entrepreneurs and artisans

³²⁹ J. V. BREDT, *Die Lohnindustrie*, p. 34. Regarding the cost of land, Müller writes: «To gain at least some impression as to what the high price of Wupper valley real estate really means, it may be as well to point out that in this particular year (1789), a mere bleach green was sold for 13,000 Thlr., a sum for which in other regions one would indeed be able to purchase a small (manorial) estate». *Chorographie von Schwelm*, p. 19.

³³⁰ FRIEDRICH OTTO DILTHEY, *Die Geschichte der niederrheinischen Baumwollindustrie*, pp. 3-5: «Ever since 1770 had the population in the Duchy of Berg, the industrious Wupper valley especially, been insufficient to satisfy locally all the orders given to the textile industry. Also, the wages here had risen to heights where they could no longer be absorbed by the local manufacture of coarse half-cottons (Siamois). It was therefore necessary to seek elsewhere cheap labor. This work force was found in the Gladbach area where the centuries old linen manufacture had reared a particularly suitable population. As a consequence some of the Berg manufacturers began, at least in part, to transfer their weaving establishments. They quite often managed their branches from their home town with the aid of factors...». Also see WILLY FRÄNKEN, *Die Entwicklung des Gewerbes in den Städten Mönchengladbach und Rheydt im 18. Jahrhundert-Schriften zur Rheinisch-Westfälischen Wirtschaftsgeschichte* (Cologne: Rheinisch-Westfälisches Wirtschaftsarchiv, 1969), vol. 19, pp. 32-33.

residing in the twin cities were to concentrate their efforts on those products requiring experience and skill and thus able to absorb the soaring labor costs. In due course, the evolution of this particular pattern in the division of labor, between town and country, became here, as elsewhere, quite pronounced.³³¹

Some years later the high prices prevailing in the Wupper valley were subjected to a perceptive and doctrinally rather interesting appraisal. Writing in 1803 one local author comments on

« ...the disadvantages which, at all times, result from excessive money wealth. These difficulties first became evident in Elberfeld and Barmen when an overabundant circulation was to manifest, in a very obvious manner, its noxious impact by way of rising food prices and the inseparable consequence of rising wages. It is a fact that for a long time to come the local manufacturers might have been spared the unpleasant pressures arising from the unceasing flow of the *numéraire* into a spatially very limited district, if the money had spread more uniformly through the whole country. This would have been especially so if there had been proportional distribution of the cash flow into less favored areas. The latter were conspicuous for their contrast when compared to the neighboring districts luxuriating, as it were, in wealth. And these poorer areas could have been stirred into activity, even without having to wait for governmental prodding, by the introduction of industry if a monopoly privilege incorporated into the state constitution had not barred the way... ».³³²

For whatever shortcomings, within the Berg countryside, the *Garnnahrung* may have been responsible, Elberfeld and Barmen,

³³¹ O. SCHELL, *Geschichte der Stadt Elberfeld*, pp. 251-252 and W. SCHUMACHER, *Untersuchung über die Entwicklung der bergischen Leidenindustrie*, p. 19, reports that during the last decades of the 18th century the few lace workers within the area boasted a weekly wage of 7 to 8 Rthlr. At the same time, the silk weavers earned 4 to 5 Rthlr. per week while the majority of journeymen weavers working on linen got about 3 Rthlr. According to W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 126, the bleacher's wage per cwt. of bleached yarn during the 1770's was 7 Rthlr. in the Wupper valley, and in the Mark only 5 Rthlr.

³³² KONRAD FROHN, *Ansichten der bergischen Industrie*, « Niederrheinische Blätter », vol. IV (Dortmund, 1803), pp. 569-571. These remarks suggest quite unmistakably the influence of Adam Smith and his classic indictment of monopoly privilege for diverting the flow of capital from its natural ways, for raising the rate of profit and prices and, in the long run, for slowing down the rate of growth. *Wealth of Nations* (Cannan Edition), pp. 570-579. For a discussion of these issues see Maurice Dobb's celebrated essay on *Imperialism*, in « Political Economy and Capitalism » (London: Routledge and Kegan Paul, 1937), esp. pp. 223-226 and the admirable study by DONALD WINCH, *Classical Political Economy and Colonies* (Cambridge, Mass.: Harvard University Press, 1965), pp. 9-14.

including the immediately vicinity, thrived. Contemporaries and many historians since then have expressed their admiration for the progress achieved by the twin cities during the last decade of the 18th century. Moreover, these observers agreed, almost unanimously, that this happy state was in no small part due to the propitiousness of existing political arrangements.³³³ Residing in Mannheim, a carefree Carl Theodor and his equally pleasure seeking court were not really concerned with the mundane matters of as distant a place as the Wupper valley. Nor could the provincial government in Düsseldorf, limited by its meager resources, mold in any consistent manner the twin cities' course of development. Only a few locally resident officials were to exceed, at one time or another, their mandate and try to implement, according to their own lights, some modest mercantilist schemes fashionable at the time.³³⁴

This then was *laissez-faire* by virtue of «benign neglect».³³⁵ To

³³³ Both Schmidt and Wiebeking stressed the importance of commercial freedom as having been decisive in the attainment of 18th century industrial property. E. F. Wiebeking, who appears to have been one of the early German converts to the teachings of Adam Smith, was particularly emphatic on that point: «...the commercial freedom enjoyed here quietly and without public display by every manufacturer and merchant would be cause for much advertisement in many a foreign land. Here there are no inspections by excise officials and the like...», *Beiträge zur Kurpfälzischen Staatengeschichte*, p. 21. The foreign land which was so unfavorably compared with the Duchy of Berg was, of course, Prussia. And writing somewhat later, K. FROHN, *Ansichten der Bergischen Industrie*, pp. 535-536 was even more explicit in his praise of the *laissez-faire* economy: «As long as they were under one crown, the Duchies of Jülich and Berg provide a classic example that the maintenance of a flourishing commerce requires neither a tariff nor government supervision. More important, these Duchies offer proof that such a trade and tariffs, especially in small German principalities, are strictly incompatible. Cut off from the United Netherlands by provinces where a monarch tried to regulate the commerce of his states by way of a tariff scheme, the Duchies of Jülich and Berg, fully enjoying freedom of trade, were able to attract into their midst industry which was no longer viable in the rich Netherlands and which by-passed the Duchy of Cleve. They (the Duchies of Jülich and Berg) were able to attract this industry without offering any advantages or inducements except cheap wages and the insouciance of their authorities. What makes this choice of location even more remarkable was the willingness of the industry to forego the most important advantages which it would expect in the Prussian provinces. Neither the same religion nor the production of indispensable raw materials sufficed to place this industry in the states of the great Frederick under whose crown it could hope for strict supervision and protection and in whose vicinity, by contrast, it had to fear his oppression...».

³³⁴ See J. HASHAGEN, *Politische-und Religionsgeschichte des Bergischen Landes*, pp. 189-193.

³³⁵ K. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, pp. 94-96.

be sure, the ducal authorities were glad to see Elberfeld and Barmen waxing rich if for no other reason that the inhabitants of these towns were to make a much needed contribution to a chronically hardpressed treasury. Given fiscal considerations of this sort, the government was ready to pass laws and regulations in support of Berg's industrial expansion provided such a program was to be inexpensive. Religious tolerance and exemption of the twin cities from military conscription were the most notable and probably the most effective of these measures.³³⁶ Taxes during this period were low and tariff duties, though insignificant, more often than not honored in the breach.³³⁷

Interestingly enough, their persistently precarious finances made the Duke and his officials resort frequently to the sale of government lands situated in the Wupper valley. Usually they did so in haste and below market price. Not surprisingly, the rich local merchants were the principal beneficiaries of these transactions. They were the ones who had the ready cash to avail themselves of the favorable terms thereby foreshadowing a pattern the Rhenish bourgeoisie in general was to enjoy when Napoleon decided to market the estates he had confiscated from the church. And one of the historic consequences of these real estate sales by the ducal authorities was that the Elberfeld-Barmen capitalist enhanced still further their already unchallenged position in society.³³⁸

Besides, the very passivity of the ducal government created a power vacuum which the rich and old established dealers were called upon to fill. As Sidney Pollard has so perceptively shown, in a manufacturing society prior to full blown industrialization and the coming of the Welfare state, leading entrepreneurs cannot escape the obligation or having to fashion for themselves the total environ-

³³⁶ W. CRECELIUS, *Beiträge zur Bergisch-Niederrheinischen Geschichte*, especially pp. 129-130.

³³⁷ TH. ILGEN, *Die Landzölle im Herzogtum Berg*, «*Zeitschrift des Bergischen Geschichtsvereins*», vol. 38 (1905), pp. 268-276. Ilgen also shows that in view of the specificity of most duties, the inflation of this period eroded even further their already limited effectiveness.

³³⁸ W. CRECELIUS, *Beiträge zur Bergisch-Niederrheinischen Geschichte*, pp. 130-131 and J. HASHAGEN, *Politische-und Religionsgeschichte des Bergischen Landes*, p. 203.

ment in which they do business.³³⁹ Given the peculiarities of the political scene in this locale and the area's long tradition of social responsibility, the Wupper valley merchants were especially willing to continue to bear the burdens of public office. For centuries they had discharged the duties of aldermen, including Mayor, elders in their respective churches and administrators of the *Garnnahrung*. But whereas until recently these *optimates* had done so as the «worthies» of quasi-overgrown industrial villages, from now on they were to do so as a city-type gentry in a decidedly urban context.³⁴⁰

By the late 18th century this mercantile élite had become a close knit oligarchy, entry into which became increasingly difficult.³⁴¹ No longer bothered about the criticism voiced by a minority bewailing the passing of simpler days, the successful dealers and manufacturers practiced a life of luxury befitting their affluence. Fancy houses, elegant furnishings, expensive jewelry, good wines, private tutors and their wives corresponding in French, were some of the hallmarks of this select group.³⁴²

In 1775, to underscore as it were their preeminence, Elberfeld's most prominent men of affairs decided to establish a club, the so-called *geschlossene Lesegesellschaft*.³⁴³ The list of its founding

³³⁹ SIDNEY POLLARD, *The Genesis of Modern Management - A Study of the Industrial Revolution in Great Britain* (Cambridge, Mass: Harvard University Press, 1965), esp. pp. 197-208.

³⁴⁰ As regards the extent of urbanization in the Valley, see WILHELM GÜTHLING (editor), *Eine wehrkundliche Beschreibung des Bergischen Landes*, pp. 132-134.

³⁴¹ See especially, ELLY MOHRMANN, *Studie zu den ersten organisatorischen Bestrebungen der Bourgeoisie in einigen Städten des Rheinlandes*, in E. GIERSIEPEN and D. LÖSCHE (editors), «Beiträge zur Deutschen Wirtschafts- und Sozialgeschichte des 18. und 19. Jahrhunderts» (Berlin: Akademie-Verlag, 1962), p. 217

³⁴² These complaints about the pervasiveness of luxury were mentioned by J. HAS-HAGEN, *Politische und Religionsgeschichte*, p. 191. For a censorious stance by a contemporary regarding the prevalence of luxury which supposedly affected all classes in society, see F. G. MÜLLER, *Chorographie von Schwelm*, pp. 19-20. While Müller deplors these parvenue efforts to emulate the richest and most distinguished, he also admits one redeeming feature of this development: «In this way, they (the parvenues) are forced to spend more on the education of their children if only because they want to make their descendants more genteel».

³⁴³ For an account of this organization, see D. A. VON CARNAP, *Die geschlossene Lesegesellschaft in Elberfeld*, «Zeitschrift des Bergischen Geschichtsvereins», vol. I (1863), pp. 54-55 and G. VON EYNERN, *Die Unternehmungen der Familie von Rath*, pp. 200-202.

members reads like like the city's « Social Register ». Rules about blackballing undesirable applicants were promptly incorporated into the society's statutes. But such exclusiveness could hardly have been directed against the hoi polloi; even if an ordinary Elberfelder had wanted to join, the price of admission alone would have been sufficient to deter him. For by the 1780's the membership fee (collected from among fifty members) had been set at no less than 350 Thlr., almost the equivalent of an average weaver's biannual earnings. These very high dues were to finance the new building with its library and spacious club rooms — completed in 1783 — plus an ample larder and equally well stocked wine cellar.³⁴⁴

It was in this kind of elegant setting that the *recherché* company gathered every Wednesday. They began their meeting with an elaborate meal, a practice which in all probability their ancestor would have denounced as an ungodly tribute to Bacchus. Be that as it may, having thus satisfied their palates and lubricated themselves into loquacity, the assembled members finally got down to what was presumably the main part of the agenda: a lecture to be followed by discussion. In this way it was hoped that these men of action, immersed in the day to day problems as traders and honorary office holders, would at least have some opportunity to broaden their minds by sampling the refinements of culture and learning.³⁴⁵

A program of the lecture series survives. To judge from this list, the subjects discussed on these occasions covered a wide range.³⁴⁶ Holding forth at the inaugural ceremonies of the club's new premises, one orator described as to what transpired to date during these « Wednesday evenings »: « Either a member or an outside lecturer delivers a paper on a topic in history or ethics or physics or statistics or business... ».³⁴⁷ However, two years later the banker Abraham Kersten, the *rector spiritus* of this society, addressed one of these weekly sessions and was moved to utter some harsh words concerning lapses on the part of the membership from the lofty

³⁴⁴ D. A. VON CARNAP, *Die geschlossene Lesegesellschaft in Elberfeld*, pp. 56-60.

³⁴⁵ *Ibid.*

³⁴⁶ D. A. VON CARNAP, *Die geschlossene Lesegesellschaft in Elberfeld*, pp. 63-69.

³⁴⁷ *Ibid.*

purposes which had originally inspired the founders of this organization.³⁴⁸

« It is true that during the early stages (of this society) we were more expertly instructed by our learned gentlemen and we experimented with electrical and other machines. Indeed, there are a few among us who are experts in these fields. But it may be that some of us have annoyed these learned members by disturbing their lectures by side conversations. Be that as it may, from this year on (1785)... we should at least utilize that one hour (on Wednesday from 6-7) more fruitfully and more interestingly. In fact, a certain writer, whom I have not read myself, has reported that we devote but one hour a week to nurturing our mind while the rest of the time we indulge our body... ».

Here then was a group of men by no means as dedicated to the pursuit of knowledge and the advancement of science and technology as their remarkable contemporaries in Birmingham's *Lunar Society*.³⁴⁹ Though well heeled and well travelled, the locals were not the refined literary type; when in 1774 the resident doctor and philosopher Jung-Stilling brought the already well-known Goethe to one of those weekly dinners, no one present had as yet heard his name.³⁵⁰ Clearly, Elberfeld's *haute volée* preferred to enjoy the surcease, after a day's labor, in a convivial atmosphere given to free and easy talk and good food and wine. But even though these earthy men did not wish to tax their brains unduly during their leisure time by pursuing high brow endeavors, it still would be most interesting to know what they talked about and how they viewed the world around them.

« Rhenanus non scribet », at least not for the record and ergo posterity will never know to what extent these merchant-prices had been exposed to the currents of contemporary thought.³⁵¹ Had

³⁴⁸ *Ibid.*

³⁴⁹ A social historian (perhaps somewhat unfairly) cannot avoid this invidious comparison. For an account of this Midland group, see the excellent study by ROBERT E. SCHOFIELD, *The Lunar Society of Birmingham - A Social History of Provincial Science and Industry in Eighteenth Century England* (Oxford: The Clarendon Press, 1963).

³⁵⁰ HERMANN M. FLASDIECK, *Goethe in Elberfeld - Juli 1774* (Elberfeld: A. Martini and Grüttertien, 1929), p. 43 and pp. 47-48.

³⁵¹ For some comments regarding the influences of the Enlightenment in the Wupper valley during the second half of the Eighteenth century, see W. REES, *Kunst-und Kulturgeschichte*, pp. 510-515. According to Rees, the impact of rationalism at that time was considerable.

at least some of them, in one way or another, embraced the Enlightenment or the scepticism of a Voltaire? And if so, did they challenge, from this vantage point, those among them who remained faithful to the canons of the old religion? And even more directly relevant to this study, how did these men, in the leadership roles as the area's principal employers and major competitors in world markets, react to rapid urbanization and more generally to the changes being wrought in economy and society, here and abroad?³⁵²

The strict censorship imposed by the authorities and, more specifically, official distrust of associations like the *Lesegesellschaft* as potential havens of subversion go far to explain this atmosphere of silence.³⁵³ Under these circumstances the Berg inhabitants, and especially the more notable burghers, considered it the better part of wisdom to be most reticent about their views on any issue of public import. While political events, great and small, foreign and domestic, were surely raised in the club rooms of the reading society, the members saw to it that the gist of these conversations never reached the marketplace.³⁵⁴

These developments point up an important though by no means unique phenomenon of European history: for all their commercial acumen and success in the capitalist race, the Wupper valley merchant-manufacturers were men devoid of political power, a kind of stunted bourgeoisie with no hope of sharing directly in the decision making process of government. In turn, the suppression of public discussion as practiced by the Berg officials also accounts for the absence of a public opinion. Finally, the long-run implications of this kind of illiberal environment led to an obvious hiatus, typical of an ambience stifling political life and public debate. This com-

³⁵² As regards opposition to the *Lesegesellschaft* and to Düsseldorf's masonic fraternities by the Church authorities, see W. REES, *Kunst und Kulturgeschichte*, pp. 520-521 and D. A. VON CARNAP, *Die geschlossene Lesegesellschaft in Elberfeld*, pp. 80-82.

³⁵³ *Ibid.*

³⁵⁴ See especially J. HASHAGEN, *Politische und Religionsgeschichte*, p. 199. Also, H. RINGEL, *Bedingungen der Wirtschaftsentwicklung*, p. 106 makes a telling point that these widely travelled merchants presumably imparted their impression about the big world to their immediate family only and not to the town at large. How far this was in response to the prevailing censorship and how far part of entrepreneurial strategy to keep from the *menu peuple* new ideas, remains a moot point.

mercially, highly developed society never articulated commensurately sophisticated views regarding the tensions and pressures to which, in one form or another, those living in the Wupper valley were being subjected.³⁵⁵

The ban on criticism and dissent was meant to preserve the established order. But the authorities did not always succeed in their efforts. Occasionally, censorship simply drove the *malaise* underground where it festered before erupting into the open. At such a stage anxious officials could not avoid paying at least some attention to what seemed an overt threat to social harmony and peace. Countless petitions, counterpetitions and bureaucratic *marginalia* have found their way into archives where they survive. In the absence of pamphlets, newspaper articles and books, these extant documents are the only evidence on the basis of which historians have been both able to assess the nature as well as the extent of group rivalries and class antagonism straining Wupper valley society during the last decades of the 18th century.

Resentment on the part of Barmen's entrepreneurs over Elberfeld domination within the *Garnnabung* was the proximate cause of one of those altercations. This long drawn out dispute, expertly summarized by Walter Dietz with respect to sequence and issues, epitomizes some of the local problems at a time when the economy was experiencing rapid progress and structural change.³⁵⁶ To repeat, a thriving Barmen specialized increasingly in the making of narrow fabrics, the so-called «Barmen wares», and in the bleaching of linen yarn. By contrast, a no less prospering Elberfeld concentrated on the manufacture of broad fabrics and, above all, on commerce and finance. In turn, the almost ineluctable consequence of so pronounced a differentiation of functions between the twin cities was an equally marked divergence among the respective burghers in their general viewpoint and specifically in their perception as to

³⁵⁵ In the England of George III, the lively debates, among rulers and ruled, concerning public issues «testifying to the wide dispersion of interest in questions before the country» have been emphasized by Wesley C. Mitchell as among the important factors responsible for the environment conducive to the emergence of classical political economy; *Types of Economic Theory - From Mercantilism to Institutionalism*, J. Dorfman (editor) (New York: Augustus M. Kelley, 1967), vol. I, p. 60.

³⁵⁶ W. DIETZ, *Die Wupperialer Garnnabung*, pp. 128 ff.

what the *Garnnabrung* could and should do to promote the public weal.

As bleachers, the Barmen producers paid the so-called *Zentnergeld* which constituted the *Garnnabrung's* principal revenue. Given the size of their contribution, these bleachers felt that their representation within the *Garnnabrung* should be in some way proportional to their taxation. Yet Elberfeld's merchants enjoyed a commanding position within the *Garnnabrung* by virtue of their wealth and their strategic role as the leaders and bankers of the region's textile business. To appreciate all the implications of this conflict it is well worth remembering that the *Garnnabrung* remained the most powerful institution within the Berg economy. Though no longer imposing output quotas on the bleachers, the *Garnnabrung* had managed to extend its supervisory functions over virtually all the textile activities located in the twin cities.³⁵⁷ Even more significantly, the ducal authorities recognized the *Garnnabrung* as an early type Chamber of Commerce performing the role of spokesman and representative for the manufacturing and commercial interests of this valley.³⁵⁸

The Barmen members were not shy in expressing their specific grievances. They were particularly annoyed that *Garnnabrung* meetings — the annual convention and the more frequent sessions attended solely by the eight *Garnmeister* and their alternates — were being exclusively held in Elberfeld. The Barmen burghers resented the long trek to Elberfeld and as an imposition and as an insult, symbolic of the subordinate status to which they felt their neighbors were subjecting them, at a time, when Barmen's contributions to the *Garnnabrung* treasury were one third larger than those made by Elberfeld. And this is why Barmen demanded that the *Garnnabrung* rescind the practice but introduced in the 18th century and revert to the old custom of holding its sessions alternately in both cities.³⁵⁹

³⁵⁷ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 30-31.

³⁵⁸ That the *Garnnabrung* controlled all textile activities in the Wupper valley is emphasized by W. LANGEWIESCHE (editor), *Beschreibung und Geschichte dieser Doppelstadt*, p. 272.

³⁵⁹ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 129-131.

Besides, the Barmen members were incensed by some of the consequences of Elberfeld's privilege. Whenever an issue debated at a *Garnnabrung* meeting was controversial and its outcome appeared in doubt, the Elberfeld oligarchy, by virtue of its locational advantage, was able to summon at very short notice relatives and petty traders who resided nearby and who had previously been instructed how to cast their ballots. Invariably, the delivery of the bloc vote secured a comfortable majority for the Elberfeld side.³⁶⁰

Given this power constellation, it is not surprising that *Garnnabrung* policy reflected the interests of the entrepreneurs in Elberfeld rather than of those in Barmen. The latter felt themselves sorely disadvantaged. When, on behalf of the *Garnnabrung*, Elberfeld's leading official took the Barmen traders to task for engaging in the illicit traffic with yarn bleached in the establishments of the neighboring Mark, the latter refuted the charge. In reply they recited their accomplishments during the last hundred years and in no uncertain manner accused the *Garnnabrung* for using its funds to advance the Elberfeld silk manufacture while, at the same time, ignoring the difficulties of Barmen's bleachers when the French raised, by about 20 per cent, the import duties on Barmen yarn.³⁶¹

As part of this antagonism, the Barmen merchants also felt that their counterparts enjoyed an undue advantage by having their own court of law where Elberfeld aldermen were competent to deal with commercial cases; the city fathers obviously did so with understanding and sympathy for the merchant's position. By contrast, the Barmen court was presided over by a judge, who as a bureaucrat and a Catholic, viewed traders and their enterprises primarily in terms of their contributions to the state treasury.³⁶² Be that as it may, the officials at the Mannheim court seemed neither too concerned nor too well informed about the causes and consequences of the disputes. Routinely, they referred all complaints to the Vice-Chancellor Knapp in Düsseldorf. Though Knapp was

³⁶⁰ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 131-132.

³⁶¹ *Ibid.* At one time Barmen's members wanted to refuse payment of their contributions to the *Garnnabrung* treasury.

³⁶² W. DIETZ, *Die Wuppertaler Garnnabrung*, p. 130.

supposedly partial to the commercial interests, he agonized over these problems without ever reaching a decision.

As the century ran out, animosities and invidious comparisons between classes and group in the Wupper valley became increasingly acrimonious. Given the pervasiveness of the regional boom, this is in no way surprising. From the pinnacles of success, the rich merchants sought, with characteristic impatience, to consolidate their present gains and thereby prepare the basis for further advances. Specifically, they tried to bend the institutional framework of Berg society in the direction that would allow them to escape the grip of *Garnnahrung* regulations.³⁶³

In social terms this type of entrepreneurial thrust amounted to no less than a frontal attack upon the existing privileges of the petty bourgeoisie — the local bleachers, domestic artisans and traders. These middling ranks were already feeling the pinch of market forces and consequently resisted with great vigor any further encroachment on their time-honored rights. In view of current developments these efforts proved largely in vain. But whatever their outcome, these struggles point unmistakably to the uneasiness widespread among a social class that had to adapt, at times painfully, to the consequences of industrial expansion.

To what extent fears of proletarianization were the main reason for these anxieties and resentments can be gleaned from some of the arguments enunciated in the course of the Schlickum affair.³⁶⁴ J. P. Schlickum was one of Elberfeld's leading Siamosen merchants. Son of a well-known family and husband of a Siebel, he definitely belonged to the local élite.³⁶⁵ In 1792 the Barmen section of the *Garnnahrung* brought charges against Schlickum for having ordered

³⁶³ The aggressiveness of the larger entrepreneurs in trying to mold a *laissez-faire* economy is well brought out by E. MOHRMANN, *Studie zu den ersten organisatorischen Bestrebungen der Bourgeoisie in einigen Städten des Rheinlandes*, esp. pp. 248-249.

³⁶⁴ See *Staatsarchiv Düsseldorf - Jülich Berg II*, 1805/II. « Acten zur Sache Ober und Unter-Barmen Garnmeister wider J. B. Schlickum gemeinschaftliche Absichten », and *Jülich Berg II*, 1805/III, vol. II. « Acten zur Sache Ober und-unter Barmen Garnmeister wider J. P. Schlickum... ».

³⁶⁵ As regards Schlickum, see the very flattering account by JOHANN WILHELM FISCHER (Dr. Walther von Eynern, editor), *Nachrichten aus meinem Leben*, in « Zeitschrift des Bergischen Geschichtsvereins », vol. 58 (1929), p. 45.

from the Wichlingausen cabinet maker Serrenberg a ribbon loom for the express purpose of having it shipped to the Alsatian town of Rappolsweiler. As the plaintiffs pointed out, Schlickum had already set up, in the form of a company *en commandite*, a business in that locality and had sent there one of his former employees to manage it. Presumably, one reason for establishing this new business was to facilitate the importation into France of Wupper valley textiles. The other alleged reason for the new enterprise was to provide the basis for the manufacture of Barmen wares and thereby escape the tariff barriers the new French government was expected to impose on manufactured imports.³⁶⁶

These were serious accusations considering that this was still the mercantilist age when here as elsewhere the promotion of local industry outside prescribed geographic limits was considered a major offense. Accordingly, the Barmen *Garnmeister* requested the Elberfeld judge to issue a warrant for Schlickum's arrest. Significantly, Elberfeld's *Garnnabrung* trustees disassociated themselves from the Barmen charge.³⁶⁷ No less noteworthy was Schlickum's reaction; he fled the valley and did not return to defend himself until he was granted a safe conduct.³⁶⁸

To Schlickum's great satisfaction Vice Chancellor Knapp was the official entrusted by the ducal government to examine and possibly adjudicate this conflict. Knapp issued his report in May 1792. In essence this memorandum reproduced the arguments made by Schlickum in his own defense. Knapp did not so much as deny the *Garnnabrung* charges, least of all the existence of the firm in Rappolsweiler. Instead he minimized their import. Clearly, this kind of bureaucratic posture was to reflect Knapp's unquestion-

³⁶⁶ See the trustees' report *Actenmässige Ausführungen der Gründen...* (probably August 1792), in « Jülig Berch II », 1805/III, vol. II, pp. 49-60.

³⁶⁷ *Idem*, p. 51. « ...Indeed, for some time now the Elberfeld and Barmen *Garnnabrung* members rarely agree on issues of mutual interest. Nor were they to be of one mind on this matter. The reason for the attitude of the Elberfelder was perhaps due to the fact that Schlickum is a relative of some of their leading members and especially a next of kin of the *Garnmeister* in office at the time. Or perhaps it was due to the fact that few of the Elberfeld members deal in ribbons and that hardly anyone among them has his main outlet in France... ».

³⁶⁸ *Idem*, p. 53.

able partiality towards the rich merchants.³⁶⁹ However, it remains a moot point whether Knapp's biases were the result — as the *Garnnahrung* hinted — of outright bribery or the result of a view that harddriving entrepreneurs like Schlickum, especially if given a free rein, were the embodiment of progress. Be that as it may, even though the dispute does not seem to have been resolved, some of the information produced in the course of this conflict allows one to assess from just another vantage point the structure of the Wupper valley textile industry and the mood of those involved in its manufacture.

Mounting his own defense, Schlickum enumerated, as capitalists are wont to do on occasions' of this sort, his contributions to the local economy. By no means reticent about these accomplishments, he claimed to have been a pioneer of the Wupper valley Turkish red dye industry and generally an innovator with respect to new and costly machines. Similarly, he asserted that the new firms set up in the Alsace would serve the long run interest of this area as well.³⁷⁰

According to Schlickum's testimony, his annual wage bill amounted to 25000 Rthlr. With this figure he obviously meant to impress the authorities regarding his role as an employer of hundreds of people. Simultaneously, he wanted to issue a warning that these jobs would be in jeopardy unless the government would heed his demand and grant him a ducal moratorium to stave off his creditors.³⁷¹

Schlickum elaborated that his temporary insolvency had come about despite his basically sound financial position. His annual profits reached 11000 Rthlr. His net worth stood at 45,000 Rthlr. and besides, he could expect some 50,000 guilders at the death of his mother-in-law.³⁷² His predicament, therefore, was simply the result of the notoriety he had gained following the charges made against him and, more specifically, because of calumnies the *Garnnahrung* had spread about him. Under these circumstances, his

³⁶⁹ *Staatsarchiv Düsseldorf - Jülich-Berg*, 1805/III, vol. I. « Acten zur Sache Ober- und Unter Barmen Garnmeister wider Johann Peter Schlickum... ».

³⁷⁰ *Jülich-Berg II*, 1805/II, pp. 24-34 and *Jülich-Berg II*, 1805/III, vol. 1.

³⁷¹ *Ibid.*

³⁷² *Jülich-Berg II*, 1805/II, pp. 25-34 (Schlickum's defense) and « Knapp's Report »; *Jülich-Berg*, 1805/III, vol. I, pp. 7 ff.

creditors had become increasingly nervous and suddenly pressed him for repayment. He, of course, could not meet these demands all at once in view of the aforementioned slow turnover of his business transactions - i.e. most of his assets were in the form of inventories and loans outstanding to weavers, other suppliers and, above all, to customers.³⁷³

Schlickum's «liquidity crisis» raises some interesting points concerning the as yet rudimentary nature of the Wupper valley capital market. It appears that the practice (observed during earlier periods) for local burghers to place their funds at the disposal of the large merchant-manufacturers continued throughout the 18th century. In the absence of other investment outlets the smaller savers had virtually no alternative but to lend their surpluses to the export traders who could turn them to profitable use. This, of course, meant that the financial structure of this valley economy was built on somewhat precarious foundations. Akin to latter day saving and loan associations, *grands marchands* like Schlickum were incurring considerable risks as they engaged in borrowing short to lend long.³⁷⁴

In any event, Barmen's *Garnnahrung* trustees were not to be cowed by what they castigated as «the shortcomings and the blatant partiality of the (official) investigation to date.»³⁷⁵ In a *Promemoria* and subsequently in a printed memorandum, the trustees sought to refute, with seemingly solid evidence, both the gist of the Knapp report as well as the arguments advanced by the defendant himself.³⁷⁶ Schlickum's affairs were hardly in a state, the trustees insisted, to rouse invidious comparisons. More important, the defendant's contention that the supervisory competence of the *Garnnahrung* did not extend to ribbons any more than to «the trade in Lyon silks... or Swiss watches», the trustees rebutted by assuming the stance of

³⁷³ Schlickum's report *Jülich-Berg*, 1805/II, esp. p. 33.

³⁷⁴ Also, E. STRUTZ, *175 Jahre Abr. Frowein junior*, pp. 27-30.

³⁷⁵ *Jülich-Berg*, 1805/III, vol. II. «Actenmässige Ausführung der Gründen...», pp. 49-60, esp. p. 57 where the Barmen trustees also ask «that the Privy Councilors Freiherrn von Kyllmann and Windescheid be entrusted with the reexamination of the present investigation...». This is a printed memorandum.

³⁷⁶ *Jülich-Berg II*, 1805/I. «Acten zur Sache Ober-und Unter Barmen Garnmeister...», pp. 92-95.

a pedagogue about to teach Schlickum and his bureaucratic supporters a lesson in local historiography:³⁷⁷

« ...Since the *Garnnabrung* edict specifically mentions the yarn trade only, the opinion handed down by the Privy Council seems to assume that the sale of ribbons is *not forbidden*. However, such an assumption is fraught with the greatest *danger* for the local manufacturing community and, besides, is totally *wrong*... (their italics).

« In olden days, at the time the *Garnnabrung* privilege was originally granted, bleaching and the yarn trade were virtually our only source of income. Now, however, it is the ribbon manufacture which sustains the current prosperity of our business. Because of this manufacture the present volume of yarn sales exceeds a thousand fold the yarn sales of those early years...

Presently, the ribbon manufacture is our staple production and provides a livelihood for several thousand workers. For Barmen's commerce, France is the principal outlet, a market that would be irrevocably lost if production were to be transferred there and Barmen goods, as a matter of course, would be declared contraband... ».³⁷⁸

According to Jacobi and Knapp (as Mohrmann perceptively points out),³⁷⁹ those opposing the *Garnnabrung* dared not as yet express these opinions aloud, neither in 1774 nor in 1784. However, by 1792 the atmosphere had sufficiently changed, in part because of the boom, in part as a result of political developments in France, for those advocating *laissez-faire* to bring these views into the open. Eventually, even the ducal authorities dismissed the *Garnnabrung* claims and thus in effect sided with Schlickum.³⁸⁰

But the dispute having thus been laid to rest, the question still remains unanswered as to why Schlickum should have been singled out for prosecution. After all, over the years many a Wupper valley merchant had, in one way or another, contravened against *Garnnabrung* rules without evoking reprisals. On most occasions the *Garnmeister* clearly preferred to ignore these *peccadilloes* and one is therefore tempted to hypothesize that the *Garnmeister* only

³⁷⁷ *Jülich-Berg II*, 1825/II. « Acten zur Sache Ober-und Unter Barmer Garnmeister wider Johann Peter Schlickum... ».

³⁷⁸ *Staatsarchiv Düsseldorf, Jülich-Berg*, 1825/II. « Acten zur Sache... wider Johann Peter Schlickum... ».

³⁷⁹ E. MOHRMANN, *Studien zu den ersten organisatorischen Bestrebungen der Bourgeoisie in einigen Städten des Rheinlandes*, pp. 248-249.

³⁸⁰ *Ibid.*

bestirred themselves against those who by virtue of their prominence and because of the spectacular nature of their activities threatened the very basis of the *status quo*. And this is probably why the *Garnnabrung* took so determined a stand against men like Bockmühl and Schlickum and last but not least against Johann Gottfried Brügelmann.³⁸¹

J. G. Brügelmann (1750-1802) was the prototype of a Schumpeterian innovator.³⁸² Apprenticed initially to his father, a prominent Elberfeld *Verleger* and Mayor, the young Brügelmann subsequently proceeded for further training to Basel. At the time, this Swiss city was the hub of a rapidly expanding cotton manufacture and it is probably from the experience gained in this buoyant environment that Brügelmann embraced the dominant vision of his life: Berg industry, if it wanted to progress, would have to absorb the superior technology practised by its West European competitors. In this sense Brügelmann was the first of a long and distinguished line of Rhineland pioneers who, throughout the 19th century, exhorted, by word and deed, their fellow manufacturers to install in their plants the more up — to — date machinery Belgian, French and above all, English entrepreneurs had been using for some years already.³⁸³

Given this kind of orientation, Brügelmann's journey to England, in 1780, became, to all intents and purposes, a « spying mission ». Visiting many of the island's celebrated manufacturing centers, Brügelmann observed with expertise all new forms of production and management. At the Arkwright factory he even managed to get hold of a spinning machine which, according to his own admission, he then smuggled out of the country. By the standards of that day, this was a rather risky undertaking.³⁸⁴

³⁸¹ Regarding opposition by the *Garnnabrung* and the authorities to the introduction of machinery, see K. FROHN, *Ansichten der Bergischen Industrie*, p. 569 fn. and FRIEDRICH SEITZ, *Reisebeschreibungen über das Bergische Land aus dem Ende des achtzehnten Jahrhunderts*, « Zeitschrift des Bergischen Geschichtsvereins », vol. 40 (1907), p. 49.

³⁸² FRANZ JOSEF GEMMERT, *Die Entwicklung der ältesten kontinentalen Spinnerei - Eine betriebs-wirtschaftliche-historische Untersuchung* (Leipzig: M. Jänecke, 1927), pp. 6-8 and W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 115-120.

³⁸³ F. J. GEMMERT, *Die Entwicklung der ältesten kontinentalen Spinnerei*, pp. 10-13.

³⁸⁴ WILHELM TREUE, *Eine preussische 'technologische' Reise in die besetzten Ge-*

Once installed in Elberfeld the new machine could not be made to function properly. Brügelmann, however, was not to be daunted by so minor a setback. Promptly, he secured the services of an English mechanic who, in turn, sought the cooperation of local loom makers and craftsmen attuned to the needs of the Wupper valley textile industry. Together these men were able to produce, with the imported spinning machine serving as a model, a new one that worked.³⁸⁵

At the sight of these spinning machine the Elberfeld members of the *Garnnabrung* were seized by all kinds of fears. From their petty bourgeois perspective, the revolutionary requirements of the water frame and mule, with respect to power and factory organization, seemed ominous. Accordingly, they pressured their *Garnnabrung* trustees to oppose Brügelmann's petition to the authorities demanding a monopoly privilege for a spinning mill he planned to erect. Brügelmann considered it only right that his considerable expenditures to date — mounting to about 20,000 Rthlr. by 1783 — and his proposed outlay should be secured against interlopers. In the end, the ducal government accepted the validity of Brügelmann's argument and granted him a monopoly for twelve years; not for forty years as he had wanted.³⁸⁶

Brügelmann built his spinning mill — five stories high — in Ratingen near Düsseldorf and named it, in honor of Arkwright, Cromford. Driven by water power, it was an imposing looking establishment, the first of its kind in the German lands. The new venture proved a resounding success. From the beginning, the various numbers of yarns produced on the water frame, on the mule and the mule jenny respectively were of the highest quality and found ready customers, at home and abroad. The superiority of the mechanically spun warps was especially conspicuous and

biete im Jahre 1814, « Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte », vol. 28, no. 1 (1935), p. 27 and W. O. HENDERSON, *Britain and Industrial Europe 1750-1850 - Studies in British Influence in the Industrial Revolution in Western Europe*, p. 142 (Liverpool: The University Press, 1954).

³⁸⁵ F. J. GEMMERT, *Die Entwicklung der ältesten Kontinentalen Spinnerei*, p. 10.

³⁸⁶ W. DIETZ, *Die Wuppertaler Garnnabrung*, pp. 117-118.

prompted Brügelmann, who was forever seeking new spheres of endeavor, to set up on his own premises weaving looms manufacturing Muselin, towels and napkins. He also installed mechanized knitting frames producing stockings, underwear and knit wares.³⁸⁷ Finally, in 1789, Brügelmann opened a Turkish red dye plant in Pempelfort — on J. H. Jacobi's former estate and thus was able to claim to be the first in the Rhineland to operate a vertically integrated textile mill.³⁸⁸

Brügelmann was not a man content to devote his efforts to one business only. He accordingly continued, in partnership with his brother, to manage the parental firm while simultaneously he assisted his brother-in-law J. F. Bredt in starting a mechanized cotton spinning mill in Barmen. For a short time, Brügelmann was also involved in a partnership with Johann Lenssen in Rheydt and finally in manufacturing enterprizes both in Cologne as well as in Munich. He clearly had the golden touch. When he died, in 1802, his worth was estimated at 600,000 Rthlr.³⁸⁹

Whatever his triumphs, it is nevertheless significant to note that Brügelmann decided, in 1782, to build his Cromford mill outside the Wupper valley, somewhat distant from the « external economies » the twin cities had to offer. The hostility to innovations on the part of his colleagues many have been one reason for this change of venue. But there may have been another and more weighty reason — friction with his weavers. At the time, the Wupper valley merchants were engaged in a serious dispute with the linen weavers and their guild. Brügelmann was in the thick of it. And curious though it may seem, the *Garnnahrung* membership which feared and opposed his innovations, in this instance of class antagonism admired Brügelmann for his determined stand against the weavers and their demands.³⁹⁰

Brügelmann's hassle with his operatives was the culmination of a long drawn out altercation between the valley's masterful mer-

³⁸⁷ F. J. GEMMERT, *Die Entwicklung der ältesten Kontinentalen Spinnerei*, pp. 59-60.

³⁸⁸ F. J. GEMMERT, *Die Entwicklung der ältesten Kontinentalen Spinnerei*, pp. 79-80.

³⁸⁹ *Ibid.*

³⁹⁰ W. DIETZ, *Die Wuppertaler Garnnahrung*, pp. 114-116.

chant-manufacturers and their embittered weavers. The weavers had much to be angry about; ever since the mid-century, in fact since they appeared on the scene in sizable numbers, their position had been deteriorating. And not even their above mentioned guild was able to arrest this tendency towards proletarianization.³⁹¹

There were several reasons why the guild rules and regulations proved ineffective in countering the decline of the weavers' status. For one, the linen and Siamois trades located in the neighboring Mark and the rural Berg parishes set the overall tone-price and quality wise-for the industry in the whole region. This, obviously, was hard on the Elberfeld-Barmen weavers who, in order to survive under these competitive circumstances, were forced to absorb the high food prices and soaring rents of their urban habitat.³⁹²

To aggravate matters still further, the second half of the Eighteenth Century witnessed a trend towards increased concentration of the Siamois manufacture's ancillary activity in the merchants' workshops. To be able to rationalize production in this way, the rich *Verleger* offered the journeymen better terms of employment in order to hire them away from the struggling masters.³⁹³ As elaborated earlier, the Guild's protests against these practices proved fruitless. The ensuing changes in the industrial structure dealt another blow to the already hardpressed masters who, so far, had derived a sizable share of their income from the employment of journeymen. Specifically, the masters had traditionally pocketed as « wages of supervision » on half of the journeyman's piece rate.³⁹⁴

Caught in a « scissor movement » of mounting costs and at best stable prices for the finished product, the impoverished linen masters became progressively worse employers. This, in turn, drove the remaining journeymen to seek out the larger workshops or to set

³⁹¹ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 184 and above.

³⁹² *Ibid.*

³⁹³ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 183.

³⁹⁴ *Staatsarchiv Düsseldorf - Jülich-Berg II, 1803 - Barmen-Elberfeld-Zwistigkeiten zwischen der Garnnahrung und der Linnweberzunft...*, p. 186.

up, more hurriedly than before, as independent masters. Prompted by conditions of this sort in the labor market, the number of master linen weavers rose from 300 in 1740 to about 1100 in 1781 while the number of journeymen, at the latter date, reached about a thousand, of whom 400 were foreigners.³⁹⁵ Again, one need hardly elaborate that such an increase in numbers did little to improve the weavers' bargaining position. To all intents and purposes, the linen weavers had become domestic wage earners in everything but in name, beholden to the 100 merchant-manufacturers who dominated the twin cities' Siamoisien industry.³⁹⁶

From the very beginning the rich *Velveger* had disliked and opposed the guild and all it stood for. Despite its basic ineffectiveness, these entrepreneurs viewed the guild as an intolerable interference with their power to manipulate and dispose over their work force as they saw fit. Indeed, the *manufactocracy* ascribed to the existence of the Guild prime reason why the Siamoisien manufacture had lagged in its progress by comparison to some of the other trades in the area.³⁹⁷

With such attitudes ingrained in them the manufacturers felt clearly outraged when the linen weavers exploited the sudden boom, occasioned by the West Indies' demand for linen-cotton, to press for higher wages. According to entrepreneurial complaints, the petty masters, at this stage, inundated by orders, supposedly accepted yarn and then, having left if lying around their workshops, failed to deliver the finished piece on schedule.³⁹⁸ This was one way for the weavers to demonstrate their hostility against the employers. The merchants were furious; unable to obtain redress from the authorities yet unwilling to accept the conditions as given, they set up a special fund for the express purpose of combatting what they

³⁹⁵ *Jülich-Berg II, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 34 b and A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, section III, p. 184.

³⁹⁶ *Ibid.*

³⁹⁷ See report by local guild masters, Elberfeld, August 1, 1781, *Jülich-Berg II, 1803 - Barmen-Elberfeld-Zwistigkeiten*, pp. 19-20 and the Promemoria of August 1781 submitted by the *Garnnahrung*, pp. 4-8.

³⁹⁸ See *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 193. Also the complaint about the weavers by Commisarius Freiherr von Schlieper, pp. 112-113.

considered as outrageous behavior on the part of their employees.³⁹⁹ At the same time, the merchants vowed to expell anyone from the *Garnnahrung* who dared to deal with the guild.⁴⁰⁰

Within a year — i.e. by 1780, economic conditions had swung from boom to slump. The Netherlands had become involved in the War for United States Independence and because of it Elberfeld-Barmen shipments to America encountered increasing difficulties.⁴⁰¹ Unemployment ensued and in the linen trades wage rates were reduced from 3½ to 2½ Thaler.⁴⁰² Once again, the *Verleger* had gained the upper hand and, considering the circumstances, they were by no means loathe to exploit this advantage. Symptomatically, in 1781, Brügelmann withheld payment from a weaver who supposedly had delivered a piece of short measure.⁴⁰³

Punitive acts of this sort caused an uproar among the masters. The guild, to quote Thun, «threw down the gauntlet» as it presented a memorandum to the authorities accusing the merchants not only of arbitrary and provocative activities but also of illegal procedures; i.e. the merchant-manufacturers refused to bring differences with their weavers to the guild masters for arbitration.⁴⁰⁴ To be sure, the judicial competence of the guild was never quite clear and, invariably, the merchants tried, whenever they could, to bypass it.

In fact, the merchants argued, in response to the guild memorandum, that differences between themselves and the weavers, were, legally speaking, a private matter that only the courts could settle.⁴⁰⁵ To this the weavers replied that from the local judge and his court they could never hope to get justice:

³⁹⁹ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 157 and p. 197.

⁴⁰⁰ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 185.

⁴⁰¹ K. FROHN, *Ansichten der Bergischen Industrie*, p. 567.

⁴⁰² A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, p. 185. According to one account, in the first six months of 1781 wages were reduced by 1/2 Rthlr. See *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, pp. 19-20.

⁴⁰³ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, «Pro memoria der Leinenweber» of August 1781, pp. 1-2.

⁴⁰⁴ *Idem.*

⁴⁰⁵ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 58 and p. 186.

«...since both the city tribunal and the magistrate consisted almost entirely of people who were *Garnnahrung* members. Indeed, one might almost view the whole group of Elberfeld merchants as virtually constituting one single family which by monopolizing the positions in the magistrate and in the court held the reins of power of this city in their hands...».⁴⁰⁶

Brügelmann, for example, was a magistrate and so were his brother-in-law and his cousin.⁴⁰⁷

In subsequent petitions the weavers reiterated their pleas to the government not to leave them at the mercy of the employers, «these all powerful people»... who seem to believe that «they can force any issue by the strength of their money bags».⁴⁰⁸ On another occasion, the weaver complained that the *Verleger* are bent on reducing them to «mere slaves», demanding «greater subservience than even an Oriental monarch would require...».⁴⁰⁹ At another time again, a weaver took offence to the term «Brodherrn» with which the merchant-manufacturers commonly referred to themselves.⁴¹⁰

Feeling secure and confident that their actions and attitudes befitted as much their station in life as they confirmed the drift of events, the merchants were unwilling to concede a point. Wages, they said, could not be raised because of competitive pressures exerted by Swiss, Silesian, Saxon and Hessen producers.⁴¹¹ «Anyway, who are these men», asked Brügelmann rhetorically and with all the arrogance typical of his class, «nothing but weavers».⁴¹² As for the widespread discontent and «the regrettable efforts of these workmen to achieve dominance over us», the *Garnnahrung* members were convinced that the guild and some local agitators were the cause of it.⁴¹³

⁴⁰⁶ Quoted by E. MOHRMANN, *Die ersten organisatorischen Bestrebungen der Bourgeoisie in einigen Städten des Rheinlandes*, p. 217.

⁴⁰⁷ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 4, p. 496 and pp. 163-165.

⁴⁰⁸ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 44 and p. 205.

⁴⁰⁹ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 165.

⁴¹⁰ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 28 b.

⁴¹¹ See E. MOHRMANN, *Die ersten organisatorischen Bestrebungen der Bourgeoisie in Einigen Städten des Rheinlandes*, p. 210-211 and *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, p. 20.

⁴¹² W. DIETZ, *Die Wuppertaler Garnnahrung*, p. 115.

⁴¹³ *Jülich-Berg, 1803 - Barmen-Elberfeld-Zwistigkeiten...*, pp. 181-182.

Once again, Vice Chancellor Knapp was entrusted with the mission of mediating the conflict. The solution he proffered was very much in line with his aforementioned pro-entrepreneurial biases. But under the circumstances his suggestions were totally impolitic. Specifically, in July 1782, the guild was given new statutes all of which were obvious concessions to the merchants' demands. For example, employers could have their pieces woven wherever they wished and could set the rate of remuneration as they saw fit. At the same time, weavers were forbidden to congregate; the offense punishable by fine. Also, strikes were strictly prohibited; first offenders were to be fined while subsequent offenders were to be jailed and subject to corporal punishment.⁴¹⁴

Not surprisingly, the promulgation of these new regulations caused a *furor* among the linen weavers, masters and journeymen alike. In 1783 there were disturbances in the twin cities. In session during this period, the Berg estates, consisting for the most part of landowners, promptly took up the weavers' cause. The Duke did not seem amused. In no uncertain terms, Carl Theodor rebuked his aristocrats for their biases in favor of supposedly outworn abuses and excoriated them for their hostility against the Elberfeld merchants.⁴¹⁵ Whether the Duke's stance was taken for fiscal reasons or because of his political viewpoint is not clear. Yet it is obvious that the sovereign and his officials unequivocally sided with the rich merchants and with capitalist expansion.

This kind of impartiality was not meant to becalm the ruffled scene. On February 3rd 1783 a full scale riot erupted. The linen weavers forced their way into the home of the Elberfeld Mayor and dragged him to the Town Hall where they demanded that he sign an agreement revising the new guild statutes. However, during that night the city fathers called upon the military in Düsseldorf. Arriving on the next day, the 360 man contingent reestablished « law and order » without too much difficulty. By the end of the month the military was ready to return to its garrison; thirteen

⁴¹⁴ A. THUN, *Die Industrie am Niederrhein und ihre Arbeiter*, book II, part II, section III, pp. 182-183.

⁴¹⁵ *Idem.*

weavers were taken along in chains. The weavers had been beaten and the *Garnnabrung* had achieved its purpose when in December 1783 the guild was abolished.⁴¹⁶

All this would suggest that in the local *Siamoisien* trade the pains of capitalist penetration were so keenly felt by the weavers concerned because the forces of growth which, at times, could have attenuated and alleviated social dislocation were in this instance offset by the competitive pressures emanating from regions with an obvious cost advantage. Though linen-cottons continued for some years in the twin cities, in the long run their location had to be elsewhere. During the next decades and throughout the next century, silken and cottons, requiring high quality workmanship, were to be the staple products of this district.⁴¹⁷ But be that as it may, the Wupper valley economy continued to exude considerable dynamism and versatility. And there seems no better way to demonstrate this resilience than to point to the skill with which, during the next twenty-five years, Elberfeld and Barmen industry was to roll with the punches, pounded hard by a world economy plagued, almost continuously, by War and Revolution.

⁴¹⁶ W. CRECELIUS (W. Harless, editor), *Beiträge zur Bergisch - Niederrheinischen Geschichte*, p. 205. Also, K. FROHN, *Ansichten der Bergischen Industrie*, p. 567.

⁴¹⁷ By that time, a silk weaver was earning 4 to 5 Rthlr. per week, a master ribbon weaver who owned his loom 7 to 8 Rthlr., see F. SEITZ, *Reisebeschreibungen über das Bergische Land aus dem Ende des Achtzehnten Jahrhunderts*, p. 49. In the Brügelmann plant at Cromford the daily wage of an operative, during the 1785-1790 period, was about 20 Stüber. (60 Stüber = 1 Rthlr.), the weekly pay of a master about 5.5 Rthlr. See F. J. GEMMERT, *Die Entwicklung der ältesten Kontinentalen Spinnerei*, p. 122.

