

## FLEXIBLE PRODUCTION IN RAVENSBRÜCK CONCENTRATION CAMP\*

In mid-1941, the Reich Economics Ministry, which had formerly opposed Heinrich Himmler's attempts to open SS industry in the concentration camps, made one notable exception and did so for exceptional reasons. During the previous year an SS garment factory, *Textil- und Lederwertung GmbH* (Textile and Leather Utilization GmbH or TexLed), had finished a rush order of 50,000 camouflage jackets as Germany prepared for war against France. Although the Third Reich aspired to organize a command economy, its style of warfare, especially the *Blitzkrieg*, was notoriously intractable to advanced planning.<sup>1</sup> These 50,000 jackets were just one example of the unforeseen volatility that the Nazi's Four Year Plan could never successfully eliminate.

Upon receiving the order, TexLed had flexibly adjusted its management, its work-force and its machinery in one day. Because larger, more rigid textile firms were committed to standardized, serial production, they could not accommodate the demand for camouflage garments (which must, of necessity, change depending upon the terrain of military operations). Thus, the concentration-camp factory filled a niche. An auditor from the Economics Ministry reported his pleasant surprise; TexLed's 'improvement in the basis of production would be respected all the more in war, for the garment industry, which is fully overloaded and occupied according to specific plans, seems to find it very difficult to accommodate demands that appear suddenly and must be met in a timely way'.<sup>2</sup> Yet what kind of flexible factory was this?

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<sup>1</sup> Alan Milward, *The German Economy at War* (London, 1965); Richard Overly, "'Blitzkriegwirtschaft'?" *Finanzpolitik, Lebensstandard und Arbeitseinsatz in Deutschland, 1939-1942*, *Vierteljahresshefte für Zeitgeschichte*, xxxvi (1988); also his *Why the Allies Won* (New York, 1995), 180-244.

<sup>2</sup> Bundesarchiv Potsdam (hereafter BAP), 23.01, Rechnungshof des Deutschen Reiches, 5636, Amtsrat Scheck, 'Vermerk über die Gesellschaft für Textil- und Lederwertung mbH. Dachau und Ravensbrück', undated [probably from shortly after March 1941; covering developments up to quarter ending 21 Mar. 1941].

Slave labour and prison guards hardly fit the 'flexible production paradigm' established by scholarship of the past decade. This 'paradigm' does not refer to any particular 'phase' of the industrial revolution; rather, it loosely predicts the development of any firm which earns its profits by nimble adjustments to fickle demand instead of standardized mass-production for predictable markets. Sociologists and historians have examined industry throughout the modern period, from the speciality steel producers of nineteenth-century Solingen to the most advanced automobile factories of Japan.<sup>3</sup> They have sought to understand the nature of productive output driven by volatile global markets and have concluded that demand-driven flexibility requires a reconfiguration of corporate organization in predictable ways. Thus, several dichotomies distinguish flexible factories from those of Ford or General Motors (one might also add AEG or Volkswagen), which strove for the standardized, assembly-line automation once perceived to be the 'one best way' for every modern economy. Instead of a centralized, rigid and hierarchical organization, flexible production employs small-scale, protean structures; instead of the specialized, labour-saving tools of mass producers, it relies on a technological basis of adaptable, general-purpose machines; instead of the 'flivver', it demands the careful application of human skill. Above all, however, scholars of flexible production have stressed its communitarian relationships between workers and capital, as opposed to the impersonal bureaucracy of the modern firm.<sup>4</sup>

To Michael Piore and Charles Sabel, 'flexible specialization is predicated on collaboration'; it enhances intellectual participation and 'depends on solidarity and communitarianism'.<sup>5</sup> Philip Scranton shares Piore and Sabel's emphasis on the marriage of

<sup>3</sup> Charles Sabel and Jonathan Zeitlin, *World of Possibilities: Flexibility and Mass Production in Western Industrialization* (Cambridge, Mass., 1997).

<sup>4</sup> For an excellent critical review, see Nancy Green, *Ready-To-Wear and Ready-To-Work: A Century of Industry and Immigrants in Paris and New York* (Durham, NC, 1997), 3-7.

<sup>5</sup> Michael Piore and Charles Sabel, *The Second Industrial Divide: Possibilities for Prosperity* (New York, 1984), 278. Their discussion of the modern firm describes a realm of rigidity and hierarchy, but scarcely of community (49-72). See also their discussion of Jeffersonian democracy and flexible production (306): 'It is the ideal of yeoman democracy, we think, that is most likely to catalyze American efforts to rebuild the economy on the model of flexible specialization. For the idea of an economy of craft communities . . . speaks to the American tradition of localism. And an economy that is based on skilled workers . . . appeals to American individualism: the sense that entrepreneurship is the source and product of personal liberty'. See

communitarian values and skilled labour. In contrast to modern managerial capitalism, he writes, this is 'the capitalism of skill, creativity, personal relations and decisiveness that formed a rich alternative'.<sup>6</sup> Shoshana Zuboff, celebrating the computer, has gone so far as to predict a 'new covenant' between labour and capital, in which 'groups work together . . . to recast the sources and purposes of managerial authority'; nothing less than a new industrial era beckons, which will 'help perpetuate belief in a synthesis of interests and thus legitimate a learning environment that presupposes relationships among equals'.<sup>7</sup> Similarly, others refer to the 'post-bureaucratic' or the 'post-hierarchical' economy and predict that global markets will compel capitalists to abandon hierarchy. This points up the flip-side of the argument for flexibility, namely that classically modern, hierarchical firms were and are dysfunctional precisely because their relationships 'are formalized and specialized to a high degree . . . [rather than] building a stable network of friendship relations'.<sup>8</sup> Or, as Piore and Sabel warn: 'Mass production's extreme division of labor routinizes

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also Charles Sabel and Jonathan Zeitlin, 'Historical Alternatives to Mass Production: Politics, Markets and Technology in Nineteenth-Century Industrialization', *Past and Present*, no. 108 (Aug. 1985), 141-3.

<sup>6</sup> Philip Scranton, *Proprietary Capitalism: The Textile Manufacture at Philadelphia, 1800-1885* (Cambridge, Mass., 1983), 57; also his 'Diversity in Diversity: Flexible Production and American Industrialization, 1880-1930', *Business Hist. Rev.*, lxx (1991). For more extensive literature on flexible production, see Byrn Jones, 'Technological Convergence and the Limits to Managerial Control: Flexible Manufacturing Systems in Britain, the USA, and Japan', in Jonathan Zeitlin *et al.* (eds.), *The Power to Manage? Employers and Industrial Relations in Comparative-Historical Perspective* (New York, 1991); Charles Sabel, 'Moebius-Strip Organizations and Open Labor Markets: Some Consequences of the Reintegration of Conception and Execution in a Volatile Economy', in Pierre Bourdieu (ed.), *Social Theory for a Changing Society* (San Francisco, 1991); Steven Tolliday, 'Management and Labour in Britain, 1896-1939', in Steven Tolliday *et al.* (eds.), *The Automobile Industry and its Workers between Fordism and Flexibility* (New York, 1987). For the special case of Germany, see Gary Herrigel, *Industrial Constructions: The Sources of German Industrial Power* (Cambridge, Mass., 1996); Jonathan Zeitlin, 'Flexibility and Mass Production at War: Aircraft Manufacture in Britain, the United States, and Germany, 1939-1945', *Technology and Culture*, xxxvi (1995). Zeitlin has rightly pointed out to me that Scranton stresses contention among workers and capital in flexibly organized firms. This is true in Philip Scranton, *Figured Tapestry: Production, Markets, and Power in Philadelphia Textiles, 1885-1941* (Cambridge, Mass., 1989), 22, 506; see also his *Endless Novelty: Specialty Production and American Industrialization, 1865-1925* (Princeton, 1997).

<sup>7</sup> Shoshana Zuboff, *In the Age of the Smart Machine: The Future of Work and Power* (New York, 1988), 285-6, 410.

<sup>8</sup> *Ibid.*, 401-3.

and thereby trivializes work to a degree that often degrades the people who perform it'.<sup>9</sup>

Without the insights of this growing literature it is unlikely that we would appreciate the diverse potential of political economy. Few have done more to de-rail the one-track vision of a progressive Chandlerian triumph of the rigid, modern firm; moreover, by doing so, these authors have reinvigorated contemporary dialogue about the progressive reform of capitalism by providing common cause among mid-level managers, entrepreneurs, shop foremen and academics alike. Yet, if Ravensbrück was based upon both slave labour *and* adaptability, does it not challenge flexible production typologies? Quick adjustment to demand did reconfigure the concentration camp's factory organization, as the paradigm of flexible production suggests that it must, but it did so in ways that cannot be accounted for in the existing literature.

Perhaps there is reason to question the dichotomy of 'community' versus 'rigid' bureaucracy. Toni Morrison has directed some wry satire at this very theme in *Tar Baby*, in which she presents Valerian, the last of a long line of Philadelphia proprietary capitalists, who has sold out to mass producers and retired. Here, Jadine, a black fashion model whose career Valerian has helped advance, brings up the subject of flexible production, as she and Valerian discuss the preachy idealism of his son:

'[Your son and I] quarreled. About why I was studying art history at that snotty school instead of — I don't know what. Organizing or something. He said I was abandoning my history. My people'.

'Typical', said Valerian. 'His idea of racial progress is All Voodoo to the People'.

'I think that he wanted me to string cowry beads or sell Afro combs. The system was all fucked up he said and only a return to handicraft and barter could change it. That welfare mothers could do crafts, pottery, clothing in their homes, like the lacemakers of Belgium and *voilà* dignity and no more welfare'. Jadine smiled. . . . 'His intentions were good'.

'They were not good. He wanted a race of exotics skipping around being picturesque for him. What were those welfare mothers supposed to put in those pots? Did he have any suggestions about that?'

'They'd trade them for other goods'.

'Really? Two thousand calabashes for a week of electricity? It's been tried. It was called the Dark Ages'.

'Well, the pottery wasn't to be utilitarian'. Jadine was laughing. 'It'd be art'.

'Oh, I see. Not the Dark Ages, the Renaissance'.<sup>10</sup>

<sup>9</sup> Piore and Sabel, *Second Industrial Divide*, 278.

<sup>10</sup> Toni Morrison, *Tar Baby* (New York, 1993), 72–3. Some, who have offered invaluable help to me, have warned me of creating 'straw men' and, no doubt, there is a significant difference between scholarly and 'popular' understanding of flexible

Morrison's ironic vignette cuts to the quick of much current enthusiasm for flexible alternatives which amount to what I will label here as *production romanticism*, a belief that a perfect form of organization or technology will create the just and good society, a belief that glorifies the act of production itself as the wellspring of identity and values. Typically, production romantics appeal to our desire for feelings of community; yet, as much as such authors desire 'community' they also claim that economic structures will produce it, sometimes as if by their own accord. 'We do not . . . pose idealistic alternatives for their own sake', Anne Donnellon and Maureen Scully reassure us; instead, they argue that communitarianism is an economic necessity.<sup>11</sup> Such a vision masks a peculiar argument, namely that 'things are in the saddle and ride mankind', but instead of voicing the pessimism of Emerson, flexible production literature poses this as a happy event, for community, rather than doomsday, is prophesied as the result. In any event, the idea that a 'machine will change the world' is common to both.<sup>12</sup>

Romantics also conveniently pass over the ideals around which communities form and act, placing them above reproach as treasured things to be valued for their own sake. It is especially this aspect, which stresses feeling over content, that is the core of romanticism. It is further alarming to see some advocates of the flexible production paradigm eschew outright any substantive dis-

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production. Yet, as the *furor* surrounding Daniel Goldhagen's *Hitler's Willing Executioners* (New York, 1996) shows, professional historians can ill afford to ignore popular conceptions of history. Consider venues more widely distributed than academic scholarship, such as MIT's International Motor Vehicle Program. James Womack, Daniel Jones and Daniel Roos, *The Machine that Changed the World: The Story of Lean Production: How Japan's Secret Weapon in the Global Auto Wars will Revolutionize Western Industry* (New York, 1991), discusses themes such as 'Lean Production: Company as Community' (53-5), 'Is Lean Production Humanly Fulfilling' (to which they answer a resounding yes!) (101-3), and 'Western "Careers" versus Japanese "Community"' (251). Some uses and abuses of history in the name of flexible production have been addressed by Jonathan Zeitlin and Steven Tolliday, 'Employers and Industrial Relations between Theory and History', in Zeitlin *et al.* (eds.), *Power to Manage?*; Paul Hirst and Jonathan Zeitlin, 'Flexible Specialization versus Post-Fordism: Theory, Evidence and Policy Implications', *Econ. and Society*, xx (1991).

<sup>11</sup> Anne Donnellon and Maureen Scully, 'Teams, Performance, and Rewards: Will the Post-Bureaucratic Organization be a Post-Meritocratic Organization?', in Hecksher and Donnellon (eds.), *Post-Bureaucratic Organization*, 85; similarly, see Zuboff, *Age of the Smart Machine*, 308.

<sup>12</sup> This belief, of course, has contributed the title of Womack, Jones and Roos, *Machine that Changed the World*.

cussion of values, which they ridicule as 'the domain of anarchists, humanists and various other categories of impractical dreamers'.<sup>13</sup> Their false dichotomies also obscure much that has always accompanied business enterprise. As Olivier Zunz has shown, the modern firm was replete with ideals of community: why else, we might ask, would IBM's managers have all dressed the same?<sup>14</sup> In addition, enthusiasts of communitarian relations seldom investigate the special nature of the technology upon which flexible factories depend for success. Is this technology conducive to managerial or worker control? To hierarchy or equality?<sup>15</sup> Likewise, they seldom pose the question whether flexibility itself is really owed to the autonomy of skilled labour or to managerial power. We might pose the question that Nancy Green has recently asked: 'flexibility for whom?' and 'what kind of community?'<sup>16</sup>

A brief history of TexLed, founded specifically to exploit women at Ravensbrück concentration camp, provides some decidedly unromantic answers to these questions. First, the firm adopted a typically modern, hierarchical structure which, as authors such as Piore and Sabel would lead us to expect, should have placed it in a strait-jacket, making quick and efficient adaptation to demand impossible. This was not so. TexLed proved more supple than other German producers in the war economy. Secondly, the flexible production paradigm identifies the modern firm as a domain corrosive to communal values, where workers and managers alike suffer alienation and therefore cannot or will not mobilize quickly to master shifting markets. The SS, however, consciously tried to endow its corporations with Nazi communal principles (albeit

<sup>13</sup> Charles Heckscher and Lynda Applegate, 'Introduction', in Heckscher and Donnellon (eds.), *Post-Bureaucratic Organization*, 1; similarly, see Donnellon and Scully, n. 11 above.

<sup>14</sup> Olivier Zunz, *Making America Corporate, 1870-1920* (Chicago, 1990). Heckscher and Donnellon acknowledge that modern bureaucracy could accommodate a sense of secure community, based namely upon homogeneity, but they still maintain that it blocks any flexible response to fluctuations in demand because of the rigid thinking homogeneity imposes: Charles Heckscher, 'Defining the Post-Bureaucratic Type', in Heckscher and Donnellon (eds.), *Post-Bureaucratic Organization*, 24-7. See, in the same volume, Frederick Gordon, 'Bureaucracy, Can We do Better? Can We do Worse?', 196; Zuboff, *Age of the Smart Machine*, 219-310.

<sup>15</sup> For an exception, see David Noble, *Forces of Production: A Social History of Industrial Automation* (New York, 1984), who pays careful attention to the location of control embedded in the nature of flexible technology. See also Zuboff, *Age of the Smart Machine*; Nitin Nohria and James Berkley, 'The Virtual Organization: Bureaucracy, Technology, and the Implosion of Control', in Heckscher and Donnellon (eds.), *Post-Bureaucratic Organization*.

<sup>16</sup> Green, *Ready-To-Wear*, 5.

extending them only to management, which served to dehumanize a sweated work-force). That these ideals were barbarous did not make them any less the basis of communitarianism. TexLed ironically confirms one basic judgement of flexible production literature: success may well depend upon community feelings. But it provides cold comfort to romantics who would celebrate 'community' without critically questioning its content. In particular, Nazi conceptions of 'national community' and 'women's work' guided the SS toward sound technological choices and nurtured a managerial consensus which enabled profits to swell, even as SS managers drove prisoners as slaves. Furthermore, SS ideology encouraged the de-skilling of women's labour and buttressed the hierarchical control of men who could adjust quickly both to demand and to a work-force under the strain of privation and murder. At Ravensbrück, the requirements of flexibility did not undermine modern hierarchy, but reinforced it, and, despite what much historical literature would have us believe, TexLed proceeded without inviting workers to enjoy the bonds of friendship and egalitarianism.

## I

### SS PERSONNEL AND THEIR ORGANIZATION

In 1936, Adolf Hitler appointed the Reichsführer SS, Heinrich Himmler, to the position of Chief of German Police. Himmler quickly used this authority to make the concentration camp a permanent feature of the new Nazi state. From then on, camps began to grow steadily as part of an established system, and this growth accelerated dramatically in the 1940s as they became integrated into the German war economy.<sup>17</sup> Before the war, however, the SS's efforts to establish forced-labour projects had met with opposition. In the first phase of camp development, Himmler's specially appointed Inspector of Concentration Camps (IKL) initiated some 'chain gang' operations: prisoners drained fens, dug ditches and levelled road beds. Still, between 1933 and 1936, lean years of widespread unemployment as Germany climbed out of the world depression, the IKL found itself checked by private industry in league with influential local officials who argued that prisoners should absorb no meaningful jobs — even

<sup>17</sup> Falk Pingel, *Häftlinge unter SS-Herrschaft: Widerstand, Selbstbehauptung und Vernichtung im Konzentrationslager* (Hamburg, 1978).

back-breaking and unloved tasks — when deserving supporters of the regime were going without work.

From 1936 onwards, however, Germany entered a period of full employment. In addition, Hitler's regime began to enjoy the blush of genuine popularity, even among its former detractors. The SS was not alone among Nazi party formations which sensed novel opportunities for projects that had previously been impossible. By 1937, the SS was surveying sites for new industrial concentration camps, and, two years later, Himmler ordered the foundation of a special office, the SS-Administration and Business Main Office (*Verwaltungs- und Wirtschaftshauptamt*, or VuWHA) to manage of a series of new SS companies. Its chief, Oswald Pohl, received a mandate to organize camp industry on a scale inconceivable before this time.<sup>18</sup>

Previously, the IKL alone had administered the camps, but Pohl brought in a cadre of officers from the outside to manage prison industries who helped preside over the foundation of the most infamous Nazi camps: Buchenwald, Sachsenhausen, Natzweiler, Neuengamme. By 1941, Auschwitz, Majdanek and Stutthoff would add to this list. Many of these new officers had experience in industrial administration, corporate law and engineering. Ravensbrück also numbered among the new camps, designed, as one of Pohl's subordinates stated, to facilitate 'a more businesslike (more productive) execution of punishment'.<sup>19</sup> As originally planned, Ravensbrück was to hold exclusively women transferred by the SS from several smaller camps over the course of 1939.

Pohl's Administration and Business Office quickly ordered industry at Ravensbrück deemed suitable for a female work-

<sup>18</sup> See Michael Thad Allen, 'Engineers and Modern Managers in the SS: The SS Business Administration Main Office' (Univ. of Pennsylvania Ph.D. thesis, 1995), 107–15.

<sup>19</sup> Salpeter, 'Tasks, Organization and Finance Plan of Office III (W)', undated [Apr.–June 1939]: NO-542. PS, NO, NI and NG documents were coded by the war-crimes attorneys at Nuremberg. Certified copies are deposited in many different locations and the United States National Archives, Washington, DC (hereafter USNA) has microfilmed them (Roll T-301). They are also available, indexed by PS, NO, NI or NG numbers, etc., at the Institut für Zeitgeschichte in Munich, the Bundesarchiv Potsdam, Bundesarchiv Koblenz or the Geheimes Preussisches Staatsarchiv in Berlin, among other places. Many are also printed in *Trial of the Major War Criminals before the International Military Tribunal, Nuremberg, 14 November 1945 – 1 October 1946*, 42 vols. (Nuremberg, 1947–9). In most cases, they are indexed by their Nuremberg Trials codes. I cite them here by these codes to facilitate location in different archives and published sources.

force.<sup>20</sup> Fritz Lechler, chosen by Pohl as the founding executive of TexLed, brought a staff with him which had organized a quartermaster corps for the militarized SS (the *Waffen-SS*) near Dachau. It is likely that these officers had tried to initiate a simple garment-making shop at that camp, the kind of enterprise that industrialists had objected to in the early years, but Dachau's original textile shop had degenerated into a half-hearted effort. If, previously, Lechler had planned a shop, he and his officers now envisioned a factory. They secured 1.7 million RM to purchase state-of-the-art machinery and formed a clear, corporate hierarchy integrated into a holding company, which Pohl began to organize at the same time.<sup>21</sup>

Pohl intended the entire structure of his SS corporate empire, of which TexLed was only one piece, to manifest ideals of Nazi *Volksgemeinschaft*, or national community. By this he meant that his companies should put the communal interests of the Third Reich foremost, even above profits. As his chief legal assistant explained in exemplary bureaucratic prose, '[t]he possible achievement of capital gains is not the task and goal but at most the result of activity that unfolds in fulfilment of our communal goal'.<sup>22</sup> Just as the leadership of the National Socialist German Workers Party (NSDAP) simultaneously claimed to manifest and serve the will of the German people, the SS claimed to be one with the NSDAP, a unified communal entity in will and deed.

<sup>20</sup> Fritz Lechler, 'Trade Report of 1940/41 of the Textil- und Lederwertung GmbH, Dachau', 28 June 1941: NO-1221.

<sup>21</sup> *Ibid.* As early as September 1933, SS guards had impounded sewing machines and looms from their enemies (mostly self-help organizations for SPD unions) and forced inmates to operate a tailors' shop: Klaus Drobisch and Günther Wieland, *System der NS-Konzentrationslager, 1933-39* (Berlin, 1993), 121-2. See also n. 2 above. The works at Ravensbrück were registered as the Textil- und Lederwertung GmbH; later, the SS-Bekleidungswerke GmbH was added at Dachau. Within the militarized hierarchy of SS business administration, the Ravensbrück works were placed within the Amt III/Verwaltungs- und Wirtschaftshauptamt, as party property; those at Dachau remained within the Amt I/Clothing of the Hauptamt Haushalt und Bauten, due to a close connection with the Waffen-SS training centre there. Both were managed as public industries. Late in 1944 the two companies merged as the Deutsche Textil- und Bekleidungswerke GmbH. The management of both had always been identical. Regarding the later fusion of the two, see USNA, Microfilm Collection, T-976, Records of the SS-Wirtschaftsverwaltungshauptamt (hereafter USNA, T-976), 3, Oswald Pohl, 'DWB Mitteilung Mai 1944', 1 Nov. 1944; USNA, T-976, 24, Opitz, Splettsstöber, Draeger, and Nenninger, 'Jahresabschlüsse zum 31. Dezember 1942 bis 31. Dezember 1943', Apr. 1944.

<sup>22</sup> Walter Salpeter to Reichsfinanzministerium Dr Asseyar, 5 Feb. 1941: USNA, T-976, 25, 'Steuerpflicht der DESt' [Deutsche Erde- und Steinwerke GmbH].

'SS industries', another report read, 'are above all a measure of the "dynamic element" of the state'.<sup>23</sup> By extension, just as the NSDAP claimed to lead a renaissance of German national culture, so too the SS conceived its industry as part of that crusade. As 'a political community called to the highest tasks', Pohl's legal officer maintained, the SS must use its resources and power for 'cultural and ideological ends'.<sup>24</sup>

The NSDAP had campaigned on the popular slogan, 'Communal Interest comes before Private Interest' (*Gemeinnutz geht vor Eigennutz*), and Pohl wanted to turn that slogan into corporate policy.<sup>25</sup> To co-ordinate newly founded companies like TexLed, the Administration and Business Head Office eventually settled upon an 'Organic Corporation', a recently invented legal structure for holding companies that had quickly captured the imagination of Pohl's advisors because it mirrored the Führer Principle:

An Organic Corporation legally exists in the vocabulary of the German Auditory Court [*Deutscher Rechnungshof*] when one company (subsidiary) is financially, economically and organizationally so structured in relation to a ruling company (the holding company) that one must see it as a dependent entity, as a limb [*Gliedorgan*] or employee of the holding company. . . . The subsidiary must receive its instructions from the parent company in all fundamental business transactions.<sup>26</sup>

In the 'Organic Corporation', each subsidiary was subsumed within the dominant 'will' of central management. Despite its emphasis upon subordination, however, this vision was far from a doctrine of Weberian alienation. SS managers believed in 'organic' hierarchy as a communitarian principle: 'Co-operative, collective achievement is its basic principle for the smooth operation of affairs'.<sup>27</sup> Furthermore, the SS's holding company was justified to the Reich as 'Communal Enterprise': 'The status of this organ of the Reichsführer SS is also proof of the communal nature [*Gemeinnützigkeit*] which this organ follows . . . the motivating force for the Reichsführer SS in carrying out these tasks is

<sup>23</sup> See n. 19 above.

<sup>24</sup> *Ibid.*

<sup>25</sup> This associated the SS with congruent reform movements in the German civil service: see Hans Mommsen, *Beamtenum im Dritten Reich* (Stuttgart, 1966).

<sup>26</sup> Bundesarchiv-Koblenz (hereafter BAK), NS3/1471, Hans Hohberg, 'Aktenvermerk für Gruppenführer Pohl', 27 Sept. 1940. See also chronology of Hans Baier: USNA, T-976, 1, Hans Baier, 'Prüfung der wirtschaftlichen Betriebe der Schutzstaffel (historische Entwicklung)', 22 May 1944.

<sup>27</sup> Walter Salpeter report, 'Organisationsplan', 18 July 1940: NO-1032.

solely the promotion of the public weal . . . especially called into being for the essential utilization of prisoners'.<sup>28</sup> Moreover, far from the mere pronouncements of top management, there is every reason to believe that mid- and lower-level managers also espoused such 'organic' ideals: 'eventual surpluses [i.e., profits] will be put at the disposal of general cultural and social ends', one SS manager reported about his company; another wrote that his operation 'serves exclusively and directly communal goals'.<sup>29</sup>

Although contemporary advocates of flexible production choose to stress loose organization, instead of glorifying hierarchy as did the SS, the cosy togetherness implied by 'organic' corporations remains a current theme among production romantics. For example, Charles Heckscher argues, 'an organic form of organization [is] more team-based, more flexible and less rule-bound than the traditional "mechanical" hierarchy'.<sup>30</sup> The question that goes unasked, of course, is 'organic in what kind of society?' Much historical scholarship has traditionally associated the typical Nazi as the banal 'mechanical' bureaucrat who is the target of Heckscher's contempt, yet the SS was seeking to differentiate its own business enterprise from what it called 'static elements' by declaring itself dynamic, organic and communitarian under the leadership of managers 'who generally bring more discipline and the unconditional, necessary dedication to the work for the SS'.<sup>31</sup> SS companies like TexLed wished to fashion products to serve Nazi ideals and, at the same time, fashion their managers as ideal Nazis. In the actual form taken by the SS's holding corporation, this rhetoric amounted to little more than requirements for interlocking boards of directors and the kind of classic branching organizational charts that had been the hallmark of large-scale industry since the turn of the century. In other words, its 'form' was nothing extraordinary or peculiarly Nazi, but its vision of community was unique to National Socialism. When it came to the content of ideology, the rhetorical benefits of the 'organic corporation' were obvious to activists and implied more than mere structure. It called forth a sense of wholeness which sprang from the 'nature' of the social body. Managerial hierarchy thus

<sup>28</sup> See n. 22 above.

<sup>29</sup> Leo Volk to Reichsjustizministerium, 21 Mar. 1942: NO-1918; BAK, NS3/954, [signature illegible], 'Kleiderkasse der Schutzstaffel', 23 June 1941.

<sup>30</sup> Heckscher and Appelgate, 'Introduction', 2.

<sup>31</sup> See n. 19 above.

became, at least in the minds of SS men, an expression of Hitler's national community itself.

Some may object to the characterization of TexLed's organizational form as nothing extraordinary, for it hardly operated under the normal economic conditions that applied to for-profit industries with civilian labourers in a market economy. To some extent this is true, although increasingly after 1941 almost no German companies operated under such 'ideal' conditions; almost all began to resort to some form of compulsory labour while, simultaneously, total war mobilization relieved them of the pressures of a truly 'market' economy. Slave labour and non-market economies never prompted Alfred Chandler, Peter Hayes or Richard Overy to declare corporations like I. G. Farben completely alien to, or outside the bounds of, normal business enterprise; nor should TexLed be treated as such. Nevertheless, it did enjoy some unusual advantages. Indeed, private industry noted TexLed's 18 percent profit margins in 1940-1 with some alarm. Himmler had persuaded the state to cover the building costs of Ravensbrück's Industrial Court (*Industriehof*), where TexLed set up its factory halls. In addition, the almost negligible sums that Ravensbrück had to pay to the Reich as 'rent' for prisoners also seemed an unfair advantage.<sup>32</sup> Fearing that the SS might usurp private markets, Reich officials had originally set limits upon the corporation's output and permitted TexLed to make only a single, standardized garment: prison uniforms.<sup>33</sup> Despite the fact that Lechler did benefit from structural advantages, advantages that the Reich Economics Ministry readily identified, these alone can by no means account for the company's profits. Other SS firms emerged under the same propitious conditions but had failed miserably. The SS had also initiated the largest brickworks in Germany at Sachsenhausen only to have them founder by mid-1940 although their product was in high demand. Therefore, the success of TexLed Ravensbrück lay

<sup>32</sup> See n. 2 above. On the rationalization of labour rents, see Hans Hohberg to Oswald Pohl, 7 July 1942: NO-1035; Pohl to all SS corporations, all Lagerkommandanten, 30 Dec. 1942, 'Neufestsetzung des Entgeltes': NO-1289; also *ibid.*, Hohberg to Gerhard Maurer, 22 Dec. 1942, 'Vergütungssätze für Häftlinge'; Lechler to Amtsgruppenchef W, 6 Nov. 1942: USNA, T-976, 15.

<sup>33</sup> Lotte Zumpe, 'Die Textilbetriebe der SS im Konzentrationslager Ravensbrück', *Jahrbuch für Wirtschaftsgeschichte*, xix (1969); also her 'Arbeitsbedingungen und Arbeitsergebnisse in den Textilbetrieben der SS im Konzentrationslager Ravensbrück'. See also n. 20 above.

not in its structural advantages but in decisions about the nature of its management and production.

The company rested on an axis of co-operation formed by Fritz Lechler and Felix Krug. Both were exceptionally young, even among SS businessmen, and it is likely that their common youth and experience cemented the relationship between them. Krug was born in 1908 and Lechler, his nominal boss, in 1912. They had already formed a working relationship before their debut as SS managers. They had each grown up around industry and commerce, and had rounded out their experience with systematic education. Lechler had learned the techniques of financial administration by attending one of Germany's commerce schools (*Handelsschule*), after which he worked in the pay-roll office of a machine-tool factory. A successful career led him to the level of office chief by 1935. Thus, when he quit to work full-time for the SS, it is reasonable to assume that conviction, not economic necessity, compelled him to do so.<sup>34</sup>

Felix Krug had grown up in the garment industry, the son of a master tailor in Munich. While the scale of his father's enterprise remains unclear, Krug undoubtedly learned the latest production practices when he attended a trade school for garment-makers and furriers (*Schneider und Kürschner*). He continued to work in the family business until, like Lechler, he switched to full-time employment with the SS in 1934. Krug's vocational training did not count as *élite* in German society, but it proved of great advantage in Ravensbrück's factory halls. He evidently felt comfortable getting his hands dirty on the production line and provided TexLed with what almost all other SS companies lacked: a competent, technical supervisor who identified with the SS. Krug's aggressive efforts to hire and keep technically skilled supervisors (by removing them from military conscription, for example) also distinguished TexLed. From the beginning, Krug sought out a small staff of experienced foremen and added a quality assessment station, another hallmark of modern production control, which provided him with continuous, reliable oversight of labour organization.<sup>35</sup>

<sup>34</sup> USNA, International Military Tribunal, Case IV against Oswald Pohl *et al.*, defense document books of Georg Lörner, affidavit, Georg Lörner.

<sup>35</sup> Berlin Document Center (hereafter BDC), Personal-Akte Felix Krug, esp. evaluations of Lechler, 1 Jan. 1940 – 30 June 1941. They praise Krug's technical skill and attribute the success of the operation to his direct supervision. Similarly, Georg Lörner's evaluation from 15 Oct. 1942: '[Krug] stands . . . at the summit of the clothing works'; it also praises his 'technical expertise' (*ibid.*).

Despite their youth, the two managers were ideological 'old-fighters' (*alte Kämpfer*) with the SS: Lechler had joined the Party and the SS in the first months of 1931; Krug a full year earlier.<sup>36</sup> Lechler further boasted a family heritage of committed Nazi managers. When he applied for the SS's eugenic evaluation of his marriage, he was not only proud of his own membership but also bragged of his father's activism: 'In his capacity as a factory director at Siemens and Halske AG in Munich, he has demonstrated the purity of his National Socialist world view [*Weltanschauung*] in the thorough-going social improvements he has undertaken for those under his charge'.<sup>37</sup> By 'social improvements' Lechler almost certainly meant the Nazi rationalization drive for a communitarian work-force with which Siemens was then experimenting.<sup>38</sup>

Combined with Lechler's accounting skills, Krug's technical expertise made TexLed the only SS company to employ the sophisticated methods of modern technical management in forced-labour supervision. As defined by Alfred Chandler and others, statistical measures were (and are) the life-blood of modern management; their substitution for the direct surveillance of operations made impersonal corporate hierarchies possible and freed the middle manager from constant, face-to-face intervention in production.<sup>39</sup> Krug rendered the complex orchestration

<sup>36</sup> BDC, Personal-Akten Fritz Lechler and Felix Krug. Gunnar Boehnert and Herbert Ziegler have both shown that the SS aggressively recruited experienced administrators in the early 1930s, and Lechler and Krug counted among these new SS men: Gunnar Boehnert, 'The Third Reich and the Problem of "Social Revolution": German Officers and the SS', in Volker Berghahn *et al.* (eds.), *Germany in the Age of Total War* (London, 1981), esp. 206; Herbert Ziegler, *Nazi Germany's New Aristocracy: The SS Leadership, 1925-39* (Princeton, 1989), 93-148.

<sup>37</sup> Lebenslauf from BDC, RuSHA-Akte and Personal-Akte Fritz Lechler.

<sup>38</sup> Tilla Siegel and Thomas von Freyberg, *Industrielle Rationalisierung unter dem Nationalsozialismus* (Frankfurt-on-Main, 1991); Carola Sachse, *Siemens, der Nationalsozialismus und die moderne Familie: Eine Untersuchung zur sozialen Rationalisierung in Deutschland im 20. Jahrhundert* (Hamburg, 1990).

<sup>39</sup> On modern bureaucratic organization, see James Beniger, *The Control Revolution: Technological and Economic Origins of the Information Society* (Cambridge, Mass., 1986); Alfred Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, Mass., 1977); also his *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge, Mass., 1990), 393-592, which contains his comparisons of managerial structures in Germany with those in the United States; Jürgen Kocka, *Die Angestellten in der deutschen Geschichte, 1850-1980; his Unternehmensverwaltung und Angestelltenschaft am Beispiel Siemens, 1847-1914: Zum Verhältnis von Kapitalismus und Bürokratie in der deutschen Industrialisierung* (Stuttgart, 1969); also his 'Eisenbahnverwaltung in der industriellen Revolution: Deutsch-amerikanische Vergleiche', in Hermann Kellenbenz *et al.* (eds.), *Historia Socialis Et Oeconomica: Festschrift für Wolfgang Zorn zum 65. Geburtstag* (Stuttgart, 1987).

of human labour and machines in the factory halls in simple numbers. He wrought statistics out of the material world of production and tracked them over time, evaluating unit costs, labour costs and depreciation rates on machinery. He combined these aggregate statistics to yield calculations of production minutes per unit product and unit labour costs. This information became transferable: it meant, for instance, that Lechler or Pohl — neither of whom understood the details of technological production — could nevertheless comprehend TexLed's operations at a glance. These techniques of modern management, not TexLed's unusual advantages in a non-market command economy, led to its success.

A prisoner of Ravensbrück's Industrial Court recalled how these typical tools of hierarchical management worked in practice:

The SS women [overseers] and the SS man Kohlmeier, who was a technical specialist [*Fachmann*, one of Krug's men], sat in their service room behind a large, glass window through which they could survey all sides of the barrack. They gave their orders to two supervisors [*Anzeiger*] who reported the yield in woven meters for every weaver . . . Once per week the weavers who did not make their daily quotas had to enter the service room and report. Dread and despair lay in their faces. Curses hailed down upon them, boxes on the ears, blows; often the whipping block was threatened. One presented oneself like a dog. Woe to whoever risked a word in defense of herself.<sup>40</sup>

The SS-man behind the glass in turn passed his measures on output and productivity up the managerial hierarchy to Lechler and Krug. In short, as one subsidiary within a larger SS holding company, TexLed employed the methods of a classically Chandlerian corporate bureaucracy: rigid, hierarchical control. The SS had laid out Ravensbrück's work barracks in a Cartesian format to best facilitate surveillance, as shown by a photograph offering a view of the sewing-machine line from the 'service room' (Plate). In Krug and Lechler's office, strict command based on such oversight afforded accurate estimates of profit and output and quick indices of productivity in the exploitation of slave labour.<sup>41</sup> Thus, TexLed displayed every attribute identified as stultifying and alienating by the flexible production paradigm — and no doubt it did alienate its workers. Here dichotomies begin to break down, though, for far from toiling in an 'Iron Cage', TexLed managers not only achieved flexible output, but also

<sup>40</sup> Charlotte Müller, *Die Klempnerkolonne in Ravensbrück: Erinnerungen des Häftlings Nr. 10787* (Berlin, 1985), 18. She worked in a handloom mill.

<sup>41</sup> Cf. nn. 2, 29 above.



'Prisoners Work in the Textile Shop' (Foto 1679, 'Häftlingsarbeit in der Schneiderei': courtesy of the collections of the Mahn- und Gedenkstätte Ravensbrück / Stiftung Brandenburgische Gedenkstätten)

espoused Nazi values of community which guided the decisions they made.

## II

### MEN'S WORK AND WOMEN'S JOBS UNDER NATIONAL SOCIALISM

When Lechler and Krug set out to found a factory for female prisoners, they acted as the vast majority of industrial managers do. Rather than inventing something completely new, they constructed a technological system from the components (both machines and techniques of organization) at hand in their sector, one in which managers' values of gender and national community already exercised considerable influence. Nazi economic rhetoric identified three distinct kinds of citizens: German men, German women, and outcasts. However much Nazis tried to build these values into production management, no engineering tradition offered specific tools tailored to exploit the slave labour of outcasts. Most initiatives focused on the ideal *Volksgemeinschaft*. Textile engineers had sought mainstream solutions to factory problems according to the perceived special needs of women and mothers in nurturing community. As a result, even if Nazi ideology drew a clear dividing line between German mothers and female prisoners, when Lechler and Krug came to purchase machines, prevailing conceptions of women's jobs configured their existing choices, not slave-driving.<sup>42</sup> The Nazi ideal of Aryan womanhood, ironically, had everything to do with the techniques and machines that Krug and Lechler tried to adapt to Ravensbrück, for these had long been fashioned for women's work in the 'national community'. Understanding their decisions therefore requires a brief step back into the 1920s and early 1930s, when these SS managers had received their training, because they merely radicalized ideas that German engineers had made current long before.

Ideals of women's work accompanied the ideology of rationalization in Germany (but by no means only in Germany) and came

<sup>42</sup> For an excellent analysis of the gendered nature of production in Great Britain and the United States, see Wayne Lewchuk, 'Men and Mass Production: The Role of Gender in Managerial Strategies in the British and American Automobile Industry', in Haruhito Shiomi *et al.* (eds.), *Fordism Transformed: The Development of Production Methods in the Automobile Industry* (Oxford, 1995). On the garment industry specifically, see Green, *Ready-to-Wear*, 162-70.

replete with communitarian principles. First of all, 'rationalization' and 'modernization' meant far more to contemporaries like Krug and Lechler than 'to reconstruct an operating system so that it functions economically more rationally'.<sup>43</sup> Scholarship which seeks to reduce these historical debates to one-dimensional economic tautologies, hopelessly misses the deeply felt cultural ramifications heralded by the production machinery and organization new to the late nineteenth and early twentieth centuries. Krug and Lechler grew up in a Germany that was struggling to confront classically modern Fordist visions of factory and society. Henry Ford had promoted his River Rouge as a revolutionary place, where machines stood in for the work of the human body, as well as for the human regulation of labour.<sup>44</sup> Ford also demanded near-absolute control over the shop floor. As compensation, he presented a vision of America in which high wages and easy access to goods would become the norm for workers in a mass-consumer society.<sup>45</sup> Like Americans, German industrialists sought to harness automation and mass-production, but they remained deeply concerned about the consequences for the German spirit. As Mary Nolan has recently shown, 'all applauded American forms of production but differed about what forms of consumption and leisure, culture and society, family and gender should or would accompany that new technology and factory'.<sup>46</sup> Germans felt that the new production methods posed a challenge to their national community, and their debates presaged flexible factory romantics by criticizing the alienation caused by Fordist production. Beyond noting purely economic differences between the New World and the Old, many Germans worried about what would happen to culture as modern production erased the pride that skilled workers vested in the work of their hands. No less, German élites viewed the advent of mass consumer society with trepidation. More than a few not

<sup>43</sup> Volker Benad-Wagenhoff, *Industrieller Maschinenbau im 19. Jahrhundert: Werkstattpraxis und Entwicklung spanabhebender Werkzeugmaschinen im deutschen Maschinenbau, 1870-1914* (Mannheim, 1993), 6.

<sup>44</sup> On modern technology, see David Hounshell, *From the American System to Mass Production, 1800-1932: The Development of Manufacturing Technology in the United States* (Baltimore, 1984); Mary Nolan, *Visions of Modernity: American Business and the Modernization of Germany* (Oxford, 1994).

<sup>45</sup> Zunz, *Making America Corporate*, 82. In general, see Stephen Meyer, *The Five Dollar Day: Labor Management and Social Control in the Ford Motor Company, 1908-1921* (Albany, 1981).

<sup>46</sup> Nolan, *Visions of Modernity*, 10.

only found the 'melting-pot' of America bereft of what they considered high culture, but also sensed Americans' wide spread contempt for it.<sup>47</sup>

Wider political and social trends brought on by the German transition to democracy after 1918 threw such concerns into sharp relief. As Joan Campbell has described, intellectuals feared that the mass man, transformed by the new democracy into a potent political force, might deny the legitimacy of their special status as bearers of German culture. Their fear 'was soon reinforced by the realization that the revolution [of 1918] had failed to institutionalize the ideal of cooperation between brain and hand, generally deemed a prerequisite for the restoration of community'.<sup>48</sup> Although the main focus in this study falls upon right-wing variants of communitarianism, concern for the union of 'the brain and hand' transcended partisan lines. In its name, Freder battles a mad scientist atop Gothic church spires in Fritz Lang's *Metropolis*. Lang draws his film to a close by having capital and labour shake hands and proclaim their unity in an inter-title, but in Germany — anything but a black-and-white world — there would be no closure. Socialists, Communists, Liberals and Nationalists often disagreed about what kind of community Germany needed; often their visions were deeply anti-democratic, hardly the kind that Piore, Sabel or Scranton would endorse. Yet visions of factory community proliferated in the 1920s.

The Nazis strove for a kind of closure of their own. Their official rhetoric identified the alienation created by Fordism as a cause behind the Red Peril. National Socialists addressed such concerns directly in industrial strategy and popular literature which warned working men of the slippery slope from de-skilled, routinized jobs into proletarianization — meaning, in Nazi vocabulary, Communist depravity.<sup>49</sup> An SS businessman also published a trade article aimed at these issues, just one indication that the SS was seeking to turn

<sup>47</sup> *Ibid.*, esp. 107–19.

<sup>48</sup> Joan Campbell, *Joy in Work, German Work: The National Debate, 1800–1945* (Princeton, 1989), 127.

<sup>49</sup> Michael Thad Allen, 'The Puzzle of Nazi Modernism: Modern Technology and Ideological Consensus in an SS Factory at Auschwitz', *Technology and Culture*, xxxvii (1996), 540–5; Karl Kasper, 'Der Mensch und die Maschine', *Fachliches Schulungsblatt der DAF: 'Steine und Erden'*, xxx (1939), 21, 30; H. Steinwarz, 'Gemeinschaftsarbeit', *ibid.*, 29. These were by no means unique.

National Socialist rhetoric into factory practice.<sup>50</sup> Nazi fundamentalists promoted a world where all conflict might disappear, where every German might know his or her station and understand it as just. Their industrial policy sought a uniquely German vision of *Betriebsführung* and *Betriebsgemeinschaft* (factory leadership and factory community), which could transform the production hall into a place for the 'spiritual mobilization of the people'. In such terms, often in mixed metaphors, the factory became the smithy of the German soul: 'Therefore man can never see technology as materialistic, as material alone! It is more than a means of the production of goods. We must see in it a weapon for the life of our people — a weapon on which to forge'.<sup>51</sup> In the idealized factory, the skilled working man could identify with his tools and the products of his hands. Literature warned of the degeneration caused by American-style 'job-consciousness', but held out hope that the working man might identify production with a grander cause, larger than himself: nothing less than the construction of national community.<sup>52</sup> Instead of spending his time preoccupied by material interests, class warfare and adversarial relations with management, he would feel a sense of belonging. In short, *Betriebsgemeinschaft* displayed the full blush of a florid production romanticism: an ideal industrial order was held aloft in the hopes that it would affirm national character and the Nazis' version of utopia. An SS factory directive aimed at civilian German men announced: 'For the greatest portion of his life each productive man stands at his work post; his bearing at work is built upon the recognition that his life's work is not a commodity which can be freely disposed of but rather that his life

<sup>50</sup> Walter Salpeter, 'Die Aufgabe der Generaltreuhandverwaltung beschlagnahmten polnischen Ziegeleien', *Tonindustrie-Zeitung: Fach- und Wirtschaftsblatt für die Industrie der Steine und Erden*, lxxv (10 June 1941), 303.

<sup>51</sup> 'Mensch und Maschine', *Das Schwarze Korps* (28 Apr. 1938), 6.

<sup>52</sup> Sachse, *Siemens, der Nationalsozialismus und die moderne Familie*, esp. 156–225 (her discussion of the technologization of housework), 256 (regarding *Betriebsgemeinschaft*). See also her *Industrial Housewives: Women's Social Work in the Factories of Nazi Germany* (New York, 1987), 28–50; Campbell, *Joy in Work*, 201–4. Note the faint damnation in Piore and Sabel, *Second Industrial Divide*, 148: 'The fascists destroyed the national labor movement, but they defended the idea of the plant community'. This, they claim, allowed communitarian shop-floor relations to survive into the post-war era. Conditions of forced labour (not just of concentration-camp prisoners, but also of the 20 per cent of the work-force made up of Eastern European civilian forced labour under the *Reichsarbeitsersatz*) are not accounted for in their narrative. For further analysis of the exact content of Nazi communitarian managerial ideology, see Helmut Trischler, 'Führer-Ideologie im Vergleich zwischen den USA, Großbritannien, Deutschland, Österreich, und der Schweiz', *Historische Zeitschrift*, ccli (1990).

must uphold the duty to his people and to his family that is constituted by his blood'.<sup>53</sup>

Yet the ideal National Socialist factory parsed its industrial citizens into gender roles, and, while men's work was supposed to forge their collective identity at the workplace, the role foreseen for women was different. The drive to modernize men's skilled labour included endless pontificating about the cultural superiority of quality, capital goods produced with labour-saving machines and skilled men who had overcome Marxist alienation from the work of their hands.<sup>54</sup> Not so for women's industrial labour, where de-skilled operations and transitory jobs remained the norm. Women were not to identify with the work of their hands but with the labour of their wombs. The gendered nature of Nazi communitarianism this implied helped shape the textile industry and guided TexLed's managers in specific choices of machines and organization.

### III

#### WOMEN'S WORK, PRISON WORK AND THE TEXTILE FACTORY

Since rationalization literature defined the German woman in the industrial work-force according to her role in preserving the working-class home where she was destined for marriage, family life and unpaid domestic labour, many have interpreted Nazi indus-

<sup>53</sup> BAK, R121/405, Betriebsordnung 1, 13 Dec. 1943, repeated in similar terms in the Geschäftsordnung also prepared on the 13th. This directive was addressed to civilian workers of Dora-Mittelwerk responsible for the manufacture of the V-2 rockets.

<sup>54</sup> Siegel and von Freyberg, *Industrielle Rationalisierung*, 132-5; Charles Maier, 'Between Taylorism and Technocracy', in his *In Search of Stability: Explorations in Historical Political Economy* (Cambridge, Mass., 1987). The attempt to invest high-ticket, quality items with culturally superior status was by no means peculiar to the Nazis. See, for instance, Walther Rathenau's comments: 'The creation of applied electrical technology involves the appearance of a new business sector and the remaking of a great portion of modern life. These relationships of modern life do not issue from the consumer but are organized by the producer, who has to drive them forward in a certain sense. The countries in which industrial development is left to consumers [i.e., Ford's America among others] could only possess a second-hand vision of business and even then it would never be realized'. Here, Rathenau connected the superiority of producer goods over consumer goods to the superiority of the nations that made them. His biographer further connected this to high cultural achievement and artistic sensibilities. See Harry Graf Kessler, *Walther Rathenau: Sein Leben und sein Werk* (Frankfurt-on-Main, 1988), 22. Regarding this sentiment among German engineers generally, see Kees Gispert, *New Profession, Old Order: Engineers and German Society, 1815-1914* (Cambridge, Mass., 1989), 114-29. Such sentiments were also common among men of letters, such as Oswald Spengler and Ernst Jünger, who glorified German technological prowess.

trial ideology as a creed aimed at keeping women in the traditional spheres of kitchen, church and children (the German cliché, *Kinder, Küche, Kirche*, is equivalent to the English-language version 'barefoot and pregnant'). But, as Jane Caplan notes, the 'image of women's exclusive consignment to the sphere of reproduction is probably one of the most widespread misapprehensions about Nazi Germany'.<sup>55</sup> The propaganda minister, Joseph Goebbels, would have agreed with Caplan on this point: 'When unmodern, reactionary men declare today that the woman does not belong in the office . . . well that was indeed never the way it was before; so such a presentation of the case suffers from foolishness'.<sup>56</sup> For Goebbels, it all depended upon the kind of job. Nazi activists did not so much seek to de-industrialize women; rather, they wanted to integrate working women into the National Socialist *Betriebsgemeinschaft*. An article in the weekly SS paper, *Das Schwarze Korps*, posed the question 'Should the German woman work?' and answered, 'yes, unconditionally'.<sup>57</sup>

'What was peculiar to National Socialism', notes Eva Rosenhaft, 'was its intention to rationalize the process of deciding which women should perform which functions'.<sup>58</sup> Women's labour did not have to be de-industrialized, nor did it have to be non-technological; rather, it had to be 'art- und naturgemäß', that is, in measure with woman's nature.<sup>59</sup>

Women endure jobs well that lack any personal involvement if they have sufficiently strong psychological ties independent of the job. Their natural ties are the family, love and care for their husband, their children, their parents. Within such an environment everything becomes 'Profession', the most noble profession for a real woman.<sup>60</sup>

The industrial physician who wrote this stood traditional rhetoric about the danger of industrial 'alienation' on its head. Whereas

<sup>55</sup> Jane Caplan, 'Forward', in Sachse, *Industrial Housewives*, 1; Leila Rupp, *Mobilizing Women for War: German and American Propaganda, 1939-1945* (Princeton, 1978), 74-6, 180. Throughout the Nazi period, Germany had a higher participation level of women's employment (though not largest in gross numbers) than the United States.

<sup>56</sup> Dörte Winkler, *Frauenarbeit im Dritten Reich* (Hamburg, 1977), 48.

<sup>57</sup> 'Sollen Frauen berufstätig sein?', *Das Schwarze Korps* (29 May 1941), 4. See also 'Für den X-Tag', *ibid.* (26 Mar. 1942), 13.

<sup>58</sup> Eve Rosenhaft, 'Women in Modern Germany', in Gordon Martel (ed.), *Modern Germany Reconsidered, 1870-1945* (New York, 1992), 142.

<sup>59</sup> Winkler, *Frauenarbeit im Dritten Reich*, 31-2. See also Annemarie Träger, 'The Creation of a Female Assembly-Line Proletariat', in Renate Bridenthal *et al.* (eds.), *When Biology Became Destiny: Women in Weimar and Nazi Germany* (New York, 1984).

<sup>60</sup> The industrial physician, Richard Hofstätter, cited in Träger, 'Creation of a Female Assembly-Line Proletariat', 255.

a role in production was supposed to serve a man's psyche by connecting him to a skilled work community, women, as 'professionals', needed fulfilment through motherhood and through nurturing a healthy German family. Too much identification with production might ruin her role in reproduction. An SS article proposed that, to accommodate the 'double burden' of the factory job and housework, the German mother should 'receive such general conditions of work that correspond to the special bodily and spiritual conditions of her being'.<sup>61</sup> Women's special role in the  *Volksgemeinschaft*  therefore called for a different factory than those for working men, and the textile industry, the article noted, particularly suited her labour.

What kind of work was supposed to correspond to the female spirit? The National Socialist regime championed a new academic discipline, industrial sociology, dedicated to answering the question by prescribing well-defined roles for men and women. Factories based on  *Betriebsgemeinschaft*  needed German women as pillars of home-life to keep their men from regressing into 'proletarian hopelessness'.<sup>62</sup> Social workers counselled factory-women in the arts of 'making do' under existing wage-relations while keeping their husbands happy and their children healthy. They did not, however, urge women to stop working, and, in both the house and factory, Nazis advocated suitable technology. Machines mediated feminine labour no less than that of men. The Nazis pushed hard for the mechanization of housework; specialists published books on correct appliances with titles like  *Advice for Selecting Cooking Utensils*  and  *Home Washing and Economical Floor Care* .<sup>63</sup> If much attention fell on housework, industrial sociologists, almost all of them women, were no less concerned with factory management. In the 1920s their efforts met with some co-operation on the part of employers, especially among large, paternalistic corporations, those which Piore and Sabel's typologies would define as welfare capitalists.<sup>64</sup> But in the 1930s the number of women in this field grew, from a tiny sub-discipline of 100–150 to a force of 3,000, as 'National Socialists

<sup>61</sup> 'Sollen Frauen berufstätig sein?', 4.

<sup>62</sup> Sachsse,  *Industrial Housewives* , 26.

<sup>63</sup> Nolan,  *Visions of Modernity* , 211, 206–26 (on the rationalization of housework generally).

<sup>64</sup> Sachsse,  *Industrial Housewives* , 15–27. Cf. Piore and Sabel,  *Second Industrial Divide* , 33–4.

laid claim to the field of social work as their own invention'.<sup>65</sup> Managers should, so ran the current of gender analysis, integrate women into low-skill jobs which did not demand steady concentration. Seen in this light, it became an act of nationalism for managers to accommodate women in simple, repetitive tasks that afforded free time to contemplate family and loved ones. Factories adapted to transience in the work-force; likewise, in positions which called for routinized work, manufacturers hired women and began to design machines to facilitate short training and accommodate operators with low motivation.

Thus, when Pohl ordered Ravensbrück to institute factories suitable to women's work, the SS chose the garment industry precisely because, along with the paper industry, it employed fully half of Germany's working women. Typical jobs were low waged, low skilled and often temporary.<sup>66</sup> Its female character by no means derived from 'organic' or 'natural' principles, as SS managers would attest in annual reports; it was an artefact of history. A brief glance at the German Textile Workers Union (*Deutscher Textilarbeiterverband*) shows that the growing predominance of women started in the 1890s, when women comprised 11 per cent of all registered members. By 1907, about the time that Felix Krug and Fritz Lechler were born, that number had swollen to 37 per cent. Between the wars, Germany had been one of the first countries to introduce individual electric drives on textile equipment and women had entered these new electric work-stations as semi-skilled or unskilled workers. By the time that Lechler and Krug were gaining their first professional training, the number of women textile-workers had tripled. As Nancy Green has shown, productivity increased ten- to eleven-fold in the sector while, simultaneously, flexibility also increased, despite sweat-shop conditions, poor pay and long hours.<sup>67</sup>

<sup>65</sup> Sachse, *Industrial Housewives*, 12.

<sup>66</sup> Kathleen Canning, 'Gender and the Politics of Class Formation: Rethinking German Labor History', *Amer. Hist. Rev.*, xcvi (1992). Winkler, *Frauenarbeit im Dritten Reich*, 46, 56-9, has shown that women's careers in textile factories were often life-long, in some ways contradicting the impression that temporary employment was the norm; nevertheless, industrialists conceived women's labour as temporary.

<sup>67</sup> Green, *Ready-to-Wear*, 31-49; 137-60 (for her chapter on sweating). The electrification of the textile industry in international context is discussed by David Nye, *Electrifying America: Social Meanings of a New Technology, 1880-1940* (Cambridge, Mass., 1990), 200-10. On gender in modern production, see Canning, 'Gender and the Politics of Class Formation', 259-61; Lewchuk, 'Men and Mass Production'.

Ravensbrück's slave-labour force was obviously quite distinct from that envisioned in the German rationalization debate because of the much different role that the *Volksgemeinschaft* foresaw for outcasts. Industrial sociologists addressed themselves to Nazi citizens, whereas the concentration camps did the very opposite. The SS had conceived the camps for the punishment and diminution of those who posed an internal threat to the 'national community', considered impurities in the body politic. For whatever reason — race, political dissent — Ravensbrück's women had forfeited their status as *German* upon entering the camps. Pohl's officers referred to inmates generally as 'fallow workers unusable in the civilian economy', whose unused if not useless potential the SS was duty-bound to put to 'communal' purposes.<sup>68</sup> In the Nazi lexicon 'fallow' was a relatively mild phrase, but derived from the same substantive judgements as a host of other, harsher terms: 'burdensome lives', 'life unworthy of life', 'useless eaters'.<sup>69</sup> All defined individual worth by reference to use-value to the body politic and signified that the SS, as well as German economic planners, considered prisoners to be a danger, not a contributor, to national industrial output.

Prisoners' outsider status was no less defined by communitarianism, but, in this case, it demanded their removal from production not their salubrious spiritual identification with it. For example, the Four Year Plan, the Third Reich's blueprint for rearmament promulgated in 1936, warned of conspiracies aimed at 'economic sabotage' and demanded a law 'making all Jewry liable for any damage caused to the German economy — and thus to the German people'.<sup>70</sup> Beyond the intensified persecution of the Jews, the Four Year Plan also led to new categories for criminal detention, such as 'asocial', a broad term that included anyone failing to contribute adequately to industrial output.<sup>71</sup> Nazi 'racial hygiene' cast the term as a biological trait: 'human beings with a hereditary or irreversible mental attitude, who, due

<sup>68</sup> USNA, T-976, 7, unsigned, undated memo [c. June 1943]. See same language in Salpeter, n. 22 above.

<sup>69</sup> Henry Friedlander, *The Origins of Nazi Genocide: From Euthanasia to the Final Solution* (Chapel Hill, 1995), 81.

<sup>70</sup> Avraham Barkai, *From Boycott to Annihilation: The Economic Struggle of German Jews, 1933–1943* (Hanover, 1989), 114.

<sup>71</sup> Falk Pingel, 'Die Konzentrationslagerhäftlinge im nationalsozialistischen Arbeitseinsatz', in Waclaw Długoborski (ed.), *Zweiter Weltkrieg und sozialer Wandel: Achsenmächte und besetzte Länder* (Göttingen, 1981); also his *Häftlinge unter SS-Herrschaft*, 69–75.

to this nature, incline toward alcoholism and immorality, have repeatedly come into conflict with government agencies and the courts, and thus appear . . . a threat to humanity'.<sup>72</sup>

In the eyes of the SS, prisoners, male or female, posed an inveterate danger to the national economy, the national community; they had to be forced to serve the economy against their 'nature'. The distinction of Ravensbrück prisoners as 'outcasts' had the effect of removing whatever prohibitions existed against the brutalization of the female body in civilian factories. Lechler and Krug organized their industrial system around 'women's work', but never intended to privilege their labour-force as 'Aryan mothers'. TexLed would show the flip-side of cosy ideals of organic *Betriebsgemeinschaft*: the same communitarianism that shaped women's work as routinized and low-skilled was of one piece with fears of contamination and degeneration which justified the brutalization of criminals. The SS set itself the task of sending such 'ballast' into the camps and compelling them to become useful producers by force. As Heinrich Himmler put it, production had to be 'earned by putting the scum of humanity, the inmates, the habitual criminals to work'; or, in another context, 'we must . . . help with our energy on location to drive things forward with the bludgeon of our word'.<sup>73</sup> Once assigned to specious categories of racial hygiene, prisoners needed to be driven with a whip rather than have their initiative and identification nurtured with production.

The perceived nature of prisoners and woman's jobs had shaped Lechler's central considerations: 'the employment of female prisoners was possible mainly in the field which is most suitable for them', his reports read. Sewing, knitting and spinning, the mainstays of TexLed, were 'also most natural'.<sup>74</sup> 'Mainly such work was carried out that fit in with the feminine work-force'.<sup>75</sup> Both the decision to organize a factory suitable to female labourers and the imperative for rigid control held portent far beyond

<sup>72</sup> Friedlander, *Origins of Nazi Genocide*, 17.

<sup>73</sup> First quotation, Heinrich Himmler, as cited in Richard Breitman, *The Architect of Genocide: Himmler and the Final Solution* (New York, 1991), 136; second quotation, Heinrich Himmler to Oswald Pohl, 5 Mar. 1943: USNA, T-175, 73.

<sup>74</sup> For both quotations, see n. 20 above; cf. Scheck and Volk, nn. 2, 29 above.

<sup>75</sup> 'Der Mindener Bericht,' 1 Apr. 1947 (written by WVHA officers in Allied captivity in Minden), repr. in *SS-Wirtschaft und SS-Verwaltung: 'Das SS-Wirtschafts-Verwaltungshauptamt und die unter seiner Dienstaufsicht stehenden wirtschaftlichen Unternehmungen' und weitere Dokumente*, ed. and intro. Walter Naasner (Düsseldorf, 1998), 178.

rhetoric as the SS set up its production lines and purchased machines. Because mechanized production for women generally remained confined to tasks that could maintain high yield while accommodating short training time, routinized work and high turnover rates, much top-of-the-line technology in the industry multiplied the output of individual workers without saving or eliminating their labour. It also required lower skill levels while still lending itself to flexible production. The nature of this machinery, therefore, warrants some added attention, for it, too, challenges flexible production romantics, who assume that communitarian skilled labour performed on general-purpose machine tools offers the only way to adjust to volatile market demands.

It is important to understand the difference between the output-multiplying machines purchased for Ravensbrück and other general-purpose machines designed to save labour. In textiles, the automatic loom and the sewing machine underscore the contrast. Power looms replaced hand looms as labour-saving systems. One tender can monitor several power looms set up rationally on the shop floor; thus, working cloth in parallel, no single bolt demands her full attention. The machine substitutes for the necessary presence of the human hand and for much of the oversight of human eyes. Like the power loom, the sewing machine also made prodigious advances in the substitution of mechanical for human action: its needle and undercarriage replicate and far surpass the fingers of the tailor, and the electric drives that came to stand as the *sine qua non* of modern garment-making in the 1920s further replaced and improved upon the treadle. Due to these progressive innovations, the garment industry experienced huge gains in productivity around the time that Felix Krug was learning his technical skills in Munich. Nevertheless, the sewing machine *multiplies* output but was never designed to *save labour*. Mechanization has not (then or today) eliminated the requirement that a single operator interact directly with every piece of clothing turned out on the line.

The difference is also one of capital investment. To return a profit, output-multiplying devices cannot represent an extraordinary investment per worker. While the purchase price for sewing machines can be considerable, it is small as a fraction of production costs, and management must focus on reducing wages. The labour-saving machine, on the other hand, usually represents a large capital investment, next to which payroll costs are often marginal, even for a highly skilled operator. In fact, the operator

*must* be skilled to ensure the proper, maximal utilization of the machine. Every ineffective use or, worse, any damage represents a loss of return on the expensive technology. The very opposite holds true for labour-multiplying devices: the bulk of production costs remains tied up in wages. This is why output-multiplying machines operate best when wielded by low-skilled and marginalized workers, for they are the lowest paid; this is why 'sweat shops' still flourish in the garment trades and why nations where labour costs and skill levels are high have either progressively lost out to developing nations in this sector or have adjusted production to labour-saving machines and high-end, luxury production.<sup>76</sup> The low-skill levels, standardization and routine demanded at sewing machines would have thrown Nazi fundamentalists into paroxysms if German men had been required to operate them in production, but it was just the kind of job that ideals of Nazi community had cut out for women. What is more, for decades German engineers and managers had been inventing and buying machines with variants of this communal ideology in mind. The result was a technology that could accommodate extreme exploitation *and* flexibility.

When Lechler declared that the 'installation of the workshops was effected in accordance with the most modern principles', he meant that '[o]nly the most modern Pfaff- und Dürckkopf fast sewing machines were obtained. Special machines (buttonhole machines, bolting machines, picoting machines, two needle columns and flat-knitting machines) were introduced as far as was possible. All machines have individual motors'.<sup>77</sup> This, the newest, most prestigious technology available, had cost him relatively little, however. One of the SS brickworks at Sachsenhausen cost over 30 million RM.<sup>78</sup> At the same time, Lechler had acquired top-of-the-line technology using only 1.7 million out of TexLed's 2.7 million RM starting capital.<sup>79</sup> Because TexLed had chosen an economic sector shaped by communal judgements about woman's 'nature', he got output-multiplying machines for steady-flow pro-

<sup>76</sup> Piore and Sabel, *Second Industrial Divide*, 213–16, note that Italy's flourishing garment industry is based on capital-intensive, labour-saving machines and a high-wage labour market. Cf. Green, *Ready-to-Wear*, 31–40. Diana Henriques, 'Bitter Dispute Pits Garment Union Against Its Workers', *New York Times*, 27 Apr. 1998.

<sup>77</sup> See n. 20 above; cf. Scheck, n. 2 above.

<sup>78</sup> BAK, NS3/625, Deutsche Erde- und Steinwerke GmbH (DESt), undated annual report [1940]. The losses of the DESt from 1938–9 amounted to more than the entire starting capital of TexLed.

<sup>79</sup> See Scheck, n. 2 above.

duction, which were (and remain) particularly suited to forced labour.<sup>80</sup> Inmates at Ravensbrück, like all concentration-camp prisoners, possessed irregular levels of skill; their population fluctuated drastically; and they clearly had no motivation to aid the SS's industrial dreams. Nevertheless, Lechler's visions of the 'most modern machines' converged with state-of-the-art technology that functioned well with such workers. Far from what the dichotomies of the 'flexible production paradigm' suggest about top-down management, visions of community, the *Volksgemeinschaft*, had guided TexLed's officers to an appropriate technological system for their degraded work-force. Nazi ideology glorified at once the exclusion and rigid control of prisoners as excommunicants, the communal solidarity of SS officers in a hierarchical organization and the standardization of women's jobs through appropriate machines. It only remains to show how this brutal and seemingly rigid company managed the flexibility of demand.

#### IV

##### FLEXIBLE PRODUCTION AT RAVENSBRÜCK

Especially after 1941–2, the entire German economy switched over to the demands of total war and, in so doing, rendered hollow the objections of private industrialists who had previously feared that concentration-camp factories might poach on their markets. After 1942, total war made those markets almost infinitely expandable, and the German economy needed every source of production it could get. The Reich Economics Ministry had first limited TexLed to large-run production of simple prisoner uniforms, but the war imposed a new regime. Lechler and Krug now began to introduce flexible production techniques in order to fulfil fluctuating, specialized orders for war commodities that larger textile factories in the private sector could not meet.<sup>81</sup> Lechler reported proudly:

<sup>80</sup> Alexander Lichtenstein, *Twice the Work of Free Labor: The Political Economy of Convict Labor in the New South* (New York, 1996), for a thorough account of the function of penal labour in the New South (mostly the labour of blacks). See Charles Dew, *Bond of Iron: Master and Slave at Buffalo Forge*, 105–121, esp. 110, for the difficulty of maintaining skilled production with slaves in the American South and its underpinning of violence and threat of violence. It is worth noting that the slave system was, nevertheless, flexible.

<sup>81</sup> Flexible output was also characteristic of the gulags during this same period: see Edwin Bacon, *The GULAG at War: Stalin's Forced Labour System in the Light of the Archives* (London, 1994), 135–7.

By the installation of an efficient tailoring workshop we could . . . create a basis for the execution of rush orders . . . This had to be much better than the efficiency of the fully occupied clothing industry, particularly limited during a war. As [the clothing industry's] capacity is, anyhow, burdened by war orders, it was extremely difficult to place additional orders for sudden requirements. With the start of production of the tailoring workshop at Ravensbrück these difficulties had to be removed all at once . . . [It was] necessary to have at one's disposal a workshop where the required re-organization of production could be effected in one stroke unfettered by technical or financial considerations.<sup>82</sup>

He cited a run of camouflage jackets as an example. The *Waffen-SS* had wanted 65,000 jackets in five weeks. *SS* quartermasters could find private manufacturers for only 15,000 and came to *TexLed* because other firms had their hands full with existing orders. 'The remaining 50,000 camouflage jackets were made by our workshops at Ravensbrück in just under five weeks and after one day's reorganization', *Lechler* reported. *TexLed* continually added new products throughout the war and distinguished itself by rapidly setting up new factory lines and increasing output with equal speed. In 1943, through 'comprehensive rationalization measures' and 'mechanization' its sewing lines tripled their output, its weaving lines septupled. The firm began to produce belts and straps for the *Wehrmacht*, as well as fur caps, gloves and vests — all despite the fact that *TexLed* had received fewer allocations of prisoners as Ravensbrück began to serve as labour lord to German armaments firms. Management reported in early 1944: 'The technical factory leadership must be singled out for special notice, for it has succeeded in achieving productivity rates with an unfree labour force equivalent with those of civilian workers'.<sup>83</sup> Very quickly such successes came to the attention of the Reich Economics Ministry as well.

This was possible because *Krug* had supervised factory layout and used firm, centralized control over the shop floor to make

<sup>82</sup> See n. 20 above.

<sup>83</sup> *USNA*, T-976, 24, 'Jahresabschlüsse zum 1. Dezember 1942 bis 31. Dezember 1943'. This would be an excellent point to discuss the evolution of product development at *TexLed*, which changed with increasing swiftness as the war progressed; unfortunately, records do not allow the daily tracking of the crucial decisions that would shed light upon exactly how the *SS* changed from a homogenous producer of prisoner uniforms to a flexible producer for the war economy. Precisely because this transition was achieved with great rapidity and dexterity, key decisions most likely took place on the shop floor among *SS* managers and were not recorded in formal reports. *Lechler* spoke only of the 'improvisation conditioned by war'. *Lechler*, n. 32 above.

TexLed responsive to quick changes in demand. He was also familiar with the supervisory control of an unskilled work-force:

The fact that women were used, who were mainly unskilled and new to the trade, was considered in the choice of the method of work . . . The women employed, though mainly strangers to the trade, have proved themselves very suitable. Due to the excellent trade knowledge of the works managers employed [led by Krug] very good rates for piecework were achieved.<sup>84</sup>

Krug and his supervisors had rigorously broken down TexLed garments into constituent components. For each they developed simple patterns that the women could learn quickly at the sewing machine. They achieved flexibility by maintaining careful control over these patterns and driving their workers to sew any fabric along any dotted line. They also trained workers and moved them through progressive increases in piece-rate quotas. One survivor described the process:

I had to sew cuffs on the shirts of male prisoners — 240 sleeves, either at night or during the day; almost every month the quantity increased. In Oct. 1943, I put pockets on white capes to be worn by the Wehrmacht soldiers fighting on the Russian front. I had to do 120 pockets, each with two flaps, out of an artificial silk material. As of December, 1943, I was shown how to put sleeves on dresses and jackets for prisoners, the famous striped uniforms. During the first two months, I had to put on 150 sleeves, night or day, and again the quantity required rose each month. In July, 1944, I had to sew on 460 sleeves.<sup>85</sup>

The rigid control, mechanization, the standardized patterns and minute division of simple tasks — all are tell-tale signs of Fordist mass-production. Though contemporary theories of flexible production warn that swift adaptation is beyond the Fordist firm, at least at Ravensbrück these theories did not hold. The prisoner's recollection above captures well the constantly changing nature of production at one level and, at another level, how the simple tasks remained the same: fulfilling progressively increasing quotas by sewing simple patterns according to the dictates of management.

TexLed supervisors had consciously implemented this factory regimen to accommodate their low-skilled work-force: 'Because of the initially low productivity rates for these workers, i.e., unpractised [*ungeübte*] prisoners, it was necessary to structure production as simply as possible'.<sup>86</sup> TexLed even set up some

<sup>84</sup> See Volk, n. 29 above.

<sup>85</sup> Christian Bernadac, *Camp for Women: Ravensbrück* (Paris, 1978), 143.

<sup>86</sup> See Scheck, n. 2 above.

lines to exploit prisoners who were otherwise 'unfit to work' and whose productivity 'was exactly zero'; at the same time, managers spoke of the 'organic further development of operations'.<sup>87</sup> Thus, while the key to TexLed's flexibility may have stemmed from 'organic' relations, managers did not extend these to the shop floor, nor did the firm rely upon skilled labour.

Nothing less than violence underwrote Ravensbrück's industrial court, as it does any slave system. The survivor quoted above also declared: 'I was told to operate an electric sewing machine (which I had never seen before) and, under the threat of being beaten up, I forced myself to succeed in turning out the work required of me . . . We led a life of fright from morning til night'.<sup>88</sup> Beatings awaited anyone who failed to reach piece-work quotas. Broken machines were considered sabotage, for which prisoners also faced whippings. Instead of motivation spurred by communal identification with management, these women were driven by terror; feelings of organic wholeness reigned only above the line between operators and management. Prisoner memoirs report that Krug's floor managers showed zeal in meting out such punishment.<sup>89</sup> Krug's technical overseer for the highest priority orders, Gustav Binder, routinely bashed women's heads against their work tables when he noticed them asleep or, indeed, suspected them of being sleepy. He also beat several women to death. The French survivor, Germaine Tillion, who augmented her own experience by interviewing former cell-mates, described him as a big, bullnecked Bavarian, 'whose workshop was the daily scene of brutalization of thirty or so of the women, over whom the reign of terror took every conceivable form'.<sup>90</sup> The language of the women she interviewed, written down twenty years after the experience, still resonates with anxious dread. It is important to remember, however, that the SS issued no formal orders demanding beating on the production line, and some directives stemming from Himmler himself even sought to forbid

<sup>87</sup> See Lechler, n. 32 above.

<sup>88</sup> Bernadac, *Camp for Women*, 143, 145.

<sup>89</sup> See the promulgation of Himmler's orders for the correct bearing towards prisoners: BAK NS4 Anhang/3, Förchner, 30 Dec. 1943, Verteiler entitled 'Umgang mit Häftlingen'; Georg Rickhey and Kurt Kettler, 'Bestrafung von Häftlingen durch Gefolgschaftsmitglieder des MW. Umgang mit Häftlingen', 22 June 1944.

<sup>90</sup> Germaine Tillion, *Ravensbrück* (New York, 1975), 62, 142-9. This section of the book includes survivor testimonies from Lily Uden, Marie-José Zillhard and Madeleine Perrin, and interviews and commentary made after the liberation of Ravensbrück by Lord Russell of Liverpool.

and curtail it. Thus, when Lechler and Krug's managers hit prisoners they were acting on their own initiative, suggesting that they willingly dedicated their creativity to enforcing the hierarchy of TexLed with violence above and beyond 'official' sanction. They did not, at any rate, just follow orders.

Of no less importance than direct violence was the threat of even deadlier conditions outside the TexLed Industrial Court, which represented a camp within a camp. Even when facing someone like Binder, TexLed workers found shelter from the elements in the factory barracks. They knew well that other prisoners worked in freezing weather without shoes, and, although a whipping awaited anyone who failed to meet Krug's quotas, by fulfilling them, women could also earn the crucial extra rations that enabled many to survive. Moreover, TexLed supervisors were also less brutal than many of the guards in the outside camp. Mortality rates in the Industrial Court were lower than those in the camp system as a whole.<sup>91</sup> Alongside the direct threat of violence that Krug's technical managers held over each woman, they also buttressed their control with the implicit threat of transferring prisoners from the relative safety of TexLed to the more deadly environment of the camp at large. Women often worked hard at their benches to avoid more dangerous work and a greater risk of being killed outright. Fear gave them powerful incentive to do Krug's bidding.<sup>92</sup>

## V

### SUMMARY

The questions posed at the beginning of this article can now be answered for Ravensbrück's Textile and Leather Utilization GmbH. What kind of factory regime was this? To whom did it lend a sense of communal identity and what kind? How did it achieve flexible output?

<sup>91</sup> Pingel, *Häftlinge unter SS-Herrschaft*, 61–8.

<sup>92</sup> This implicit threat was common in all industries that used concentration-camp labour effectively. See, for example, Lutz Budraß and Manfred Grieger, 'Die Moral der Effizienz: Die Beschäftigung von KZ-Häftlingen am Beispiel des Volkswagenwerks und der Henschel Flugzeug-Werke', *Jahrbuch für Wirtschaftsgeschichte*, ii (1993), 97–101. Women prisoners working at the Heinkel aircraft works approached efficiency rates equal those of civilian labourers at routinized mass-production.

I do not claim that TexLed should, by any stretch of the imagination, count as a typical flexible factory. It was doubly exceptional: it operated by exploiting forced labour; and it did so in the circumstances of a total war that had suspended market forces. Although Nancy Green has demonstrated that sweated textile factories in the 1920s and 1930s, operating in peace-time markets, could and did achieve flexible outputs, Ravensbrück's regime was unquestionably more harrowing.<sup>93</sup> Some critics may, therefore, object that TexLed cannot be considered relevant to the 'flexible production paradigm' at all, for the company owed its success to violence, output-multiplying technology and hierarchical control. Yet Lechler and Krug did achieve quick adaptations to fluctuation in demand, and we cannot settle for a production romanticism that would constrain historical inquiry to firms that exhibited nice, wholesome communities and ignore those that specialized in a kind of flexible barbarism. Any theory that claims flexible output *requires* the absence of hierarchy and *depends* upon skilled workers in a happy communion with capital, but that would then declare TexLed to be irrelevant — because entirely different conditions contributed to its success and because it conformed to none of the flexible 'paradigm's' felicitous prescriptions — any such theory must be considered a tautology indeed. Although TexLed's factory halls were extraordinary, the nature and flexibility of their machines were mainstream. So, too, was the form of the corporation; only the threats and practices of violence, and the radical first principles of Nazi community that sanctioned them, were unusual. We can only gain critical insight to these phenomena if we jettison production romanticism and its celebration of community for its own sake.

To those who claim that classically modern management cannot sustain communal principles, whereas flexible production is 'organic', the history TexLed is also a cautionary tale. Of course, it may be a dark irony that TexLed produced a kind of community among workers, in the sense that those who survived necessarily walked away with a collective identity of a sort. But who among the survivors would have chosen this shared sisterhood of victimization? Many, of course, did not survive at all. Perhaps the community of victims can be counted 'organic', but only as an outgrowth of a criminal state. Emphasis on 'community' for its

<sup>93</sup> Green, *Ready-to-Wear*, 137–60.

own sake, common among production romantics, hardly provides solid ground from which to understand or prevent the terror that gathered these women together. Nor should we forget that the managers of TexLed themselves expected their factory regime to produce the *Volks-gemeinschaft*. Because this same ideology had branded the women of Ravensbrück as outcasts long before they became prisoners and thus slaves, the ties that bound TexLed stopped at the line between management and labour — but the ethos of management was no less communitarian for all that.

The desire to adjust flexibly to volatile demand can manifest itself in numerous ways, not only those that predict happy consequences for labour and capital. Along with the promise of democracy and equity, the extraordinary example of TexLed shows that this diversity must include the potential for barbarity. The best flexible production literature repeatedly demonstrates the need to examine the political bases of factory regimes; some few have directed commentaries towards those who have abandoned this ambition. ‘The high priests of the new organization are generally understood as progressives who seek to liberate humanity from the chains of bureaucracy’, write Nitin Nohria and James Berkley: ‘For a large number of people, however, the new organizational rhetoric increasingly represents nothing more than an attempt to buy out the last bastions of opposition by cleverly declaring that the grounds for resistance no longer exist [and] futurism floods in to fill an ideological vacuum’.<sup>94</sup>

I must, nevertheless, stress that this article does not imply that the flexible production ‘paradigm’ *per se* encourages violent exploitation, like that at Ravensbrück, only that it *can* do so if we settle for the ideological vacuum of production romanticism. The romantic quest for ideal structures or sweet machines, which will create, of their own accord, sound communities and great societies hardly began with scholarship on flexible production. It is as old as Saint Simon, and likely far older. Some of its strongest protagonists were precisely those champions of the modern corporation that attracted the principled critique of Piore, Sabel and Scranton. In *Scale and Scope*, Alfred Chandler concludes that modern enterprises ‘were the pace setters of the industrial sector of their economies — the sector so critical to the growth and transformation of national economies into their modern, urban

<sup>94</sup> Nohria and Berkley, ‘Virtual Organization’, 124.

industrial form'.<sup>95</sup> His point overreaches the measured analysis of industrial structure and encompasses the nature of modern society in general. Other authors have taken this point further to argue that modern industrial structures drive the development of liberal democracy. David Landes did so in *Unbound Prometheus*, when he argued that 'he who is rational in one area [i.e., the rational business enterprise] is more likely to be rational in others', that is, in politics.<sup>96</sup> Or, as Michael Adas has noted, 'the long-standing assumption that technological innovation was essential to progressive social development came to be viewed in terms of a necessary association between mechanization and modernity'.<sup>97</sup> 'Vulgar' Marxist prophecy of deliverance to the happy end phase of capitalism through the evolution of production technique scarcely differs in its underlying sentiment. Like Piore and Sabel, who discuss Jeffersonian democracy along with managerial technique, the ultimate subject of this literature, as it should and must be, is the social good. Whether constructing modern hierarchy and mass-production technology or an open shop floor and multi-purpose machines, the only way to ensure 'progressive social development' is actually to make it a primary concern. The romantic substitution of organizational form or machines for the substance of the good only serves to paralyse that meaningful inquiry.

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<sup>95</sup> Chandler, *Scale and Scope*, 593.

<sup>96</sup> David Landes, *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to Present* (Cambridge, Mass., 1969), 21.

<sup>97</sup> Michael Adas, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca, NY, 1989), 410.