

# INDUSTRIALIZATION IN SOUTHEASTERN KANSAS, 1870-1915

by

Robert K. Ratzlaff & Thomas R. Walther  
Pittsburg State University

Governor Walter Stubbs, 1909-1913, once compared southeastern Kansas to southeastern Europe, the pejorative term stuck and the region became known as the "Balkans of Kansas." The "Balkans" include the state's nine southeastern most counties - moving east to west in tiers of three - Bourbon, Crawford, Cherokee; Allen, Neosho, Labette; Woodson, Wilson, Montgomery. The region was known for its coal miners and company towns, not cowboys and cowtowns; its smelters and brickyards, not wheat and corn fields; and for its labor unions and violent labor-management disputes, not the self-reliant farmer. Indeed, southeastern Kansas had its cowtowns (Baxter Springs), its gunfighters (the Daltons), and its farmers (corn and later soybeans), but it was unique because of the industrial boom that swept across the region in the four decades prior to World War I. The industrialization of southeastern Kansas began in the 1870's while the region was still a frontier, reached its zenith in 1910, and then declined sharply during the 1920's. Therefore, this paper will examine the factors which inspired the region's spectacular growth, some selected manufacturers of "low value" mineral products, and finally suggest some causes for the demise of southeastern Kansas as an industrial complex.

Southeastern Kansas was, perhaps, the only region between the Mississippi River and the Rocky Mountains to experience the non-agricultural oriented industrialization similar to that of the manufacturing heartland of the United States. Certainly this nine-county area benefited from some very real advantages that closely resembled those associated with the highly industrialized regions of the United States. First, the national and even international demand for the region's "low value" mineral products (zinc, clay products, glass, and cement) provided the initial stimulus. Second, the abundant raw materials were in proximity to inexpensive sources of fuel -- coal and later natural gas. Third, an adequate transportation system was available and the cost was not prohibitive. Fourth, a steady and seemingly inexhaustible supply of laborers from the economically ravaged sections of southern and eastern Europe was available. Fifth, investment capital was plentiful and would-be industrial sites (small towns in the region) were eager to have the factories. Finally, the region had a number of intelligent and aggressive entrepreneurs.<sup>1</sup> The latter was the most unpredictable variable; they possessed the ability to convert the frontier into an industrial complex, but they had neither the foresight nor the perseverance to use the region's advantages in order to provide sustained economic growth.

Industrialization in the last three decades of the nineteenth

century was unthinkable without the availability of coal. This low-cost fuel fired the furnaces of American industry and would continue to do so until the development of natural gas fields in the latter part of the century. Pioneer settlers had taken coal from Crawford County to nearby settlements of Fort Scott, Kansas, and Carthage, Missouri, before the Civil War and during the 1870's hundreds of miners stripped coal by animal power from the outcroppings in the eastern part of that county. The first successful deep-shaft mine was opened during the 1870's and for the next half century was the dominant mode of extracting coal. Mechanized strip mining gradually replaced deep-shaft mining in the 1920's and 1930's and has remained, to the present day, the chief means of obtaining the valuable fossil fuel.<sup>2</sup>

It was aggressive railroad promoters that made coal mining a big business in southeastern Kansas. In the Spring of 1876, Ed H. Brown laid out a townsite along the prospective route of the Girard and Joplin Railroad and Franklin Playter named the city after Pittsburgh,



Pittsburg's Founder; Franklin Playter and daughter Phyllis. (Pittsburg State University Special Collections)

Pennsylvania, because of the coal deposits nearby. The Girard and Joplin Railroad became a part of the St. Louis and San Francisco Railroad and the new city became the hub of the coal mining operations, and the first industrial city in southeastern Kansas.<sup>3</sup> In the next decade local markets were expanded and companies were established to take advantage of regional and even national demand.

In 1885, Ed Brown began coal operations in Crawford County near Midway (previously known as Holes-in-the-Prairie) and when the company went bankrupt it was reorganized as the Pittsburg and Midway Coal Company. This company successfully made coal mining a big business and is still in operation in 1981. Jay Gould also entered the picture in 1885 when the Nevada and Minden Railroad (later the Missouri Pacific) was constructed into the county and became closely associated with the Western Coal and Mining Company which put down a shaft at Minden in 1885. The Santa Fe Railroad, associated with the Pittsburg Coal and Mining Company, sunk a mine shaft at Frontenac, Kansas, in 1886.<sup>4</sup> By 1903, there were 44 mining concerns in Crawford County, operating 62 shaft mines which employed nearly 7,000 men and produced over four million tons of coal per year.<sup>5</sup>

It was also enterprising railroad promoters that created an adequate transportation system for southeastern Kansas. Railroad construction complemented industrialization, lines were first constructed to carry coal out of Crawford County and as manufacturing spread westward so did rail service. The nine county area was served by five major railroads. The Missouri, Kansas, and Texas (KATY), the Missouri-Pacific and the Kansas City Southern Railroads ran north-south through the area. The Atchison, Topeka, and Santa Fe and the St. Louis and San Francisco (FRISCO) Railroads carried the



Coal Shaft - Chicopee, Kansas. (The University Geological Survey of Kansas, Annual Bulletin on the Mineral Resources of Kansas for 1897. Lawrence, Kansas, 1898.)

east-west traffic. All major cities in the industrial complex were served by two and sometimes three railroads. It was relatively easy,

therefore, to transfer materials within the region and for each community in southeastern Kansas to import or export commodities to almost any destination in the United States. Initially the railroads sought the carrying trade of the Kansas manufacturers, but when national market configurations changed the region was victimized by discriminatory freight rates. Nevertheless, railroad entrepreneurs were responsible for the development of coal and a transportation system, two essential ingredients in an industrial base.<sup>6</sup>

The first sign of industrialization in southeastern Kansas was the appearance of scores of mining communities in Crawford and Cherokee Counties.<sup>7</sup> They were located along a line running from the northeastern part of Crawford County to the north central part of Cherokee County and ranged in size from self-sufficient communities to camps of less than 50 people. Their initial appearance coincided with the opening of the first deep-shaft mine in 1874 and their disappearance followed the conversion to mechanized strip mining in the 1920's. The typical coal field worker was a part of the "New Immigration" from southern and eastern Europe.<sup>8</sup> He willingly accepted the hazardous task of underground mining, but found it exceedingly difficult to assimilate into the white, anglo-saxon, protestant culture of nineteenth century America. The great variety of nationalities and the unruly reputation of the coal field laborer prompted the term "Balkans" but it was these newly-arrived immigrants who provided the reservoir of labor that made southeastern Kansas so attractive to industrialists.<sup>9</sup>

The combination of coal, cheap labor, the existence of raw materials nearby, and entrepreneurs with capital for investment, led to the establishment of the zinc smelting industry in Crawford County during the 1870's. Lead and zinc were mined in the Joplin, Missouri, and Galena, Kansas (southeastern Cherokee County) area in the early 1870's, but this region did not possess the necessary



(The University Geological Survey of Kansas Annual Bulletin on the Mineral Resources of Kansas for 1897. Lawrence, Kansas, 1898.)

fuel to convert the raw material into a finished product. It was most efficient to carry the ore to the source of fuel, therefore, the Crawford County coal fields were a logical place to establish the industry. Early attempts to carry the ore to Weir City (in northern Cherokee County) by wagon proved cumbersome and with the completion of the Girard and Joplin Railroad, Pittsburg became a most attractive location for the potential industrialists.<sup>10</sup>

The growth of Pittsburg as an industrial site and the development of zinc smelting were interrelated. In 1878, the first factory was constructed in the Crawford County metropolis and within fifteen years it was known as the zinc smelting capital of the United States. The manufacturing of zinc was a fairly simple process and the buildings used were little more than sheds. The crushed ore was roasted, by using inexpensive "slack" coal, until the sulphur was removed. The zinc ore (now changed to zinc oxide) was mixed with carbon (coke), and placed inside a clay retort which was heated externally until the zinc oxide was reduced to a metallic state (the heat of the furnace volatilized the zinc and deprived it of oxygen). The final step was to cool and mold the product and ready it for market.<sup>11</sup> The furnaces used for the process were constructed with the ash pits above the ground with sloping banks of earth or cinders leading up to the furnace floor. By 1891, six companies had 42 furnaces in operation and the city had grown to 7,034.<sup>12</sup> Environmentalists would be appalled by the enormous amounts of sulphur belched into the air and, on a rainy day, returned to the surface as sulphuric acid. Nevertheless, the manufacturing process was simple, the profits enormous, and the variables (cost of labor and fuel) were easily controlled.<sup>13</sup> To a great degree the zinc smelting industry in Pittsburg was a Lanyon family affair and when they decided to quit Crawford County in the 1890's in favor of Neosho and Allen Counties there was a major change in the economic configuration of the area.

Inexpensive coal was responsible for the location of the zinc smelting industry in Crawford County and in the 1890's the entrepreneur anticipated even greater profits by moving west because of the promise of free natural gas. The existence of this low cost fuel was discovered



Gas Wells near Iola, Kansas, 1880's (Pittsburg State University Special Collection. )

near Iola in 1873 but went unappreciated until the 1890's. The most productive fields were developed during that decade along the Verdigris and Neosho River valleys and three discernible industrial complexes in the gas fields emerged: the Iola-Humboldt-Chanute strip; the Fredonia-Altoona-Neodesha triangle; and the Independence-Coffeyville-Caney triangle which also included Cherryvale.<sup>14</sup> In 1897 there were 10 gas producing wells, five years later there were 80, and the number had increased to 204 by 1904.<sup>15</sup> Many companies actually drew from their own wells and the process was sometimes as simple as drilling a well and piping it into the nearby factory. Coffeyville, in the year of the Dalton raid--1892--was already using the wonder fuel for urban heating and lighting.<sup>16</sup> With the development of the gas fields each community sought to attract industry and become the next Kansas City or New York City. "If you are seeking a location for any kind of manufacturing or business," wrote a typical newspaper editor, "come to our city where we have an abundance of natural gas, the cleanest, cheapest, and best fuel on earth."<sup>17</sup>

And come they did. Zinc smelters were constructed in Chanute, Fredonia, Altoona, Cherryvale, Chaney, Coffeyville, and Neodesha. Iola, however, was the undisputed leader with ten factories, although not all were operative at the same time. Smeltermen, like Robert Lanyon and George Nicholson, made Iola the new zinc smelting capital of the United States. In 1907, for example, there were seven smelters in Iola which employed over 2,000 men and the population of this Allen County community increased from 1,706 in 1890 to 10,313 in 1910.<sup>18</sup> The zinc smelting industry was always very artificial because its effectiveness was totally dependent on the continued supply of cheap fuel and when in 1910 the gas fields were exhausted the factories ceased production. Zinc smelting terminated in Iola, as elsewhere, by 1918, and the "low value" mineral most responsible for industrialization in southeastern Kansas had spent its force.

The glass products industry had an even greater dependence on natural gas than zinc smelting. The industry was established in the Sunflower state at the turn of the twentieth century, but had a tenure of less than two decades. By 1911, however, Kansas ranked ninth in national glass production and for a short time was one of the centers for production of containers and window glass.<sup>19</sup> The first glass factory in Kansas, the Cherryvale Glass Company, was opened early in 1902, followed shortly by the Kansas Glass Company in Coffeyville, and the Midland Glass Company in Independence. Glass-making was confined exclusively to the gas fields and, in fact, 16 of the 25 plants constructed in Kansas were located in the Independence-Coffeyville-Caney triangle.<sup>20</sup> The Midland Glass Company, organized by a group of glassmen from Hartford City, Indiana, was typical of the glass industry's experiences in southeastern Kansas. They convinced the city of Independence to give them land, constructed houses for and recruited skilled glass workers from Indiana, experimented unsuccessfully with sand from Wilson County, enjoyed phenomenal growth in the

first decade of the twentieth century and then failed to survive beyond World War I.<sup>21</sup>

The glassmaking industry began to experience difficulties almost immediately upon their arrival in Kansas. The failure to find suitable sand in the area had a devastating effect on the industry because of the high cost of importing raw material. Moreover, skilled workers in the industry (glass blowers, flatteners, mold-makers, pressers, and gatherers) were among the highest paid employees in the United States. This meant that the industry had to import a large number of its employees and, thus, could not take advantage of the area's supply of laborers who were willing to work at low salaries. When the industry mechanized elsewhere in the United States the Kansas factories were unable, or unwilling, to compete and the glassmaking industry left southeastern Kansas.<sup>22</sup> The glassmaking industry's brief history in the Sunflower state was, therefore, a combination of several factors including: the depletion of natural gas, lack of available raw materials (sand), high labor costs, and the inability to adapt to the technological innovations within the industry.

The clay industries had a much different history than the other "low value" mineral products. Early plants were small family-owned enterprises that produced brick as a supplement for the local grist and saw mill's supply of building materials. It developed into a big business first in Crawford County in the 1890's because suitable clays were located in proximity to the coal beds. Then, with the development of a more economical fuel in the first decade of the twentieth century, brick and tile factories were constructed or expanded in the western part of the region. The process of manufacturing clay products was quite simple; clay was extracted from nearby pits and carried to the factory where it was ground, mixed, shaped, dried, vitrified (the process whereby the various clays were fused at a high temperature and made durable), and distributed to the marketplace. The two dozen cities that claimed the 50 brick and tile factories were dispersed geographically throughout the region, were always more dependent on local demand and were less effected by the vicissitudes of national markets.<sup>23</sup> The industry also required fewer skilled laborers than glassmaking and could effectively use the region's available manpower. Therefore, the clay products industry, unlike glass and zinc, survived the depletion of natural gas.

The two main centers of the clay products industry were Pittsburg and Coffeyville. In the Fall of 1890, John Moore and Robert Nesch founded a brick plant in the northwestern part of Pittsburg. The Pittsburg Vitrified Brick Company was immediately awarded a contract to pave Broadway Street from Second to Eleventh Street. Laying of this pavement in Pittsburg attracted the attention of other towns and a strong demand for vitrified brick kept the local plant busy. The company in its heyday had a capacity of 100,000 bricks per day. The highlight of this company's history, which terminated in 1925, was a

contract to provide bricks for the Indianapolis speedway.<sup>24</sup> Robert Nesch was also involved in the development of what became the



(The University Geological Survey of Kansas Annual Bulletin on the Mineral Resources of Kansas for 1900-1901. Lawrence, Kansas, 1902.

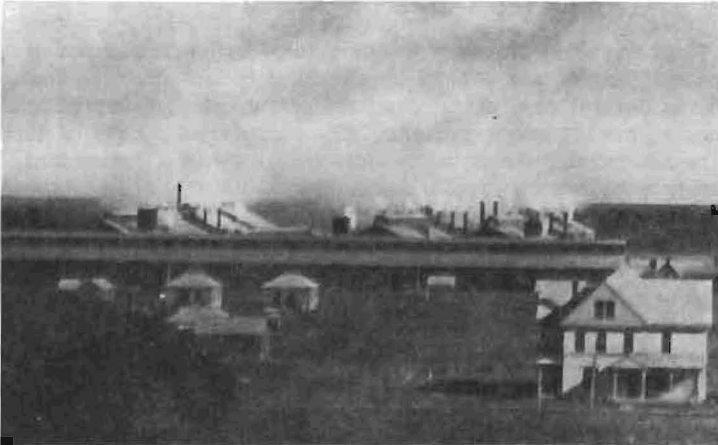
W. S. Dickey Clay Company. He purchased the plant from the original owners, renamed it the Pittsburg Sewer Pipe and Conduit Company, and began to produce sewer tile. In 1903, the plant was sold to Walter Dickey of Kansas City who converted it into one capable of producing sewer pipe in great quantities.<sup>25</sup> The clay products industry provided some industrial diversity for Pittsburg and was responsible for filling the void left when the smelting industry moved westward.

The largest clay products factory in southeastern Kansas, the Coffeyville Vitrified Brick and Tile Company, was founded in 1894. Four years later it merged with the Francis Brick Company of Coffeyville and by 1901 had either purchased or built plants in Chanute, Independence, and Cherryvale. By 1902, the company was capitalization of the clay products in Kansas and it had become the second largest brick firm in the United States.<sup>26</sup> George Francis should be credited for much of the company's success. The Pennsylvania brickman, who migrated to Kansas in the 1880's, discovered the brick-making shale around Coffeyville and was the first to use natural gas to burn brick. The company also purchased water, gas, and oil wells and developed its own machine shop and foundaries to construct and repair its equipment. In 1926, the Coffeyville plant was merged with 31 other companies to form the United Brick and Tile Company and finally in 1940 the factory was dismantled--a victim of time and consolidation.<sup>27</sup>



The most attractive of all "low value" mineral products was cement. There was a great demand for the product outside the region and southeastern Kansas was blessed with a happy combination of fuel and raw material. Production of portland cement was primarily dependent on the existence of limestone and shale in great quantities near the surface so the cost of removing the overburden would not be excessive. Gypsum was the only critical missing ingredient and it could be imported with little difficulty. Fuel costs represented 30 to 40 percent of the total manufacturing costs, therefore, the cement factories were constructed in the gas belt stretching from Iola to Independence. Kansas ranked fourth among portland cement producing states during the decade preceding World War I.<sup>28</sup> The Sunflower state ranks considerably lower today, but the state's cement industry has not diminished in importance or output; in fact, they have doubled their capacity in the last 50 years.

The first cement factory in the state, the Kansas Portland Cement Company, was constructed at Iola in 1898 and its success encouraged other entrepreneurs to plan similar projects. Thirteen cement factories were eventually constructed and their location mirrored the glassmaking industry. Six were located in Allen County (Iola - 2, Humboldt - 2, Mildred, and Carlyle), two in Neosho County at Chanute,



(The University Geological Survey of Kansas Annual Bulletin on the Mineral Resources of Kansas for 1900-1901. Lawrence, Kansas, 1902.

three in Wilson County (Fredonia, Altoona, Neodesha), and two in Montgomery County at Independence.<sup>29</sup> The prohibitive amount of capitalization needed (\$1,000,000 to \$1,500,000) prevented materialization of the many other cement factories planned in the area. Five plants have survived to the modern period including factories at Iola, Chanute, Humboldt, Fredonia, and Independence.

The most successful portland cement operations were located at Iola and Independence. There were in 1907, for example, over 1,000 men employed in cement manufacturing in each of the communities. The experiences of the two Independence firms exemplifies the history of cement production in southeastern Kansas. In September of 1905, the Western States Portland Cement Company began production at its plant  $1\frac{1}{2}$  miles southeast of the city and has enjoyed continuous production to this date. It was purchased by the Atlas Company in the early 1920's and then in 1929 became a part of United States Steel.<sup>30</sup> A second plant, located at the northeast end of Table Mound some five miles north of Independence, commenced production in 1907. The huge installation, capitalized at \$2,500,000, had a company town nearby (Le Hunt) and fed the raw material directly from Table Mound into the factory. It was originally organized by George Nicholson, joined a combine under the name of United Kansas Portland Cement Company in 1908, declared bankruptcy in 1914, re-organized and produced briefly in 1916, and was finally purchased by the rival company in Independence in 1918.<sup>31</sup> The Le Hunt factory failed despite circumstances conducive to survival which suggests that management, more than any other factor, dictated success or failure in the cement business. The cement industry in Kansas successfully confronted the problems that plagued all the "low value" mineral industries and survived into the modern period.

Most experts agree that the demise of industrialization in southeastern Kansas was caused by a number of factors including; depletion of natural gas, discriminatory freight rates, overproduction, and changing market configurations. The diminished supply of natural gas in the second decade of the twentieth century is a convenient, but not entirely satisfactory, explanation. The industrial base, especially in the western part of the region, was based on free or inexpensive fuel, but industrialization preceded the development of natural gas. Moreover, the cement and clay products companies that survived suggest that reasonable alternatives were available. The lone exception was glassmaking which encountered too many problems to survive beyond World War I. Likewise, discriminatory freight rates--real or imagined--was a convenient scapegoat for management's inability to control production and anticipate the ever evolving market configurations.

In summary, the role of the promoter and entrepreneur, men like Robert and William Lanyon, George Nicholson, Robert Nesch, George Francis, and many others, deserve more attention (perhaps, a separate paper) to fully appreciate the rise and decline of industrialization in southeastern Kansas. Were promoters more interested in manufacturing securities than mineral products? Was management so blinded by the initial profits that they failed to anticipate changes? Why did some companies survive, while others with greater assets, fail? Was the demise of industrialization in southeastern Kansas inevitable? In any case, the promise of industrial greatness was not

fulfilled and this unique chapter in Kansas and Western history has gone largely unnoticed.

## NOTES

<sup>1</sup>The best study of "low value" mineral production is John G. Clark, Towns and Minerals in Southeastern Kansas: A Study in Regional Industrialization, 1890-1930 (Lawrence, Kansas, 1970), 2, 37, 62. For a study of industrialization in the West see Lawrence H. Larsen, The Urban West at the End of the Frontier (Lawrence, Kansas, 1978).

<sup>2</sup>Home Authors, Twentieth Century History and Biographical Record of Crawford County, Kansas (Chicago, 1905), 102; William E. Powell, "Former Coal Mining Communities of Cherokee-Crawford Coal Fields of Southeastern Kansas," Kansas Historical Quarterly, Vol. 28 (Summer, 1972), 182, 189-91.

<sup>3</sup>Alfred T. Andreas, History of the State of Kansas (Chicago, 1883), 1120.

<sup>4</sup>Home Authors, Twentieth Century History, 111-114.

<sup>5</sup>Ibid., 117.

<sup>6</sup>Homer E. Socolofsky and Huber Self, Historical Atlas of Kansas (Norman, Oklahoma, 1972), 30, 36.

<sup>7</sup>For a more complete discussion of coal mining communities see Robert K. Ratzlaff and Thomas R. Walther, "Crawford County: From Coal to Soy Beans, 1900-1941," Heritage of Kansas, Vol. 11 (Spring, 1978), 5-7.

<sup>8</sup>Maldwyn A. Jones, American Immigration (Chicago, 1960), 177-246.

<sup>9</sup>J. Neal Carman, Foreign Language Units of Kansas, I (Lawrence, Kansas, 1962), 110; Kenneth L. Simons, "And So We Become 'The Balkans of Kansas,'" Pittsburg Headlight-Sun, September 17, 1970.

<sup>10</sup>Richard L. Douglas, "A History of Manufacturers in the Kansas District," Kansas Historical Collections, Vol. 11 (1909-1910), 166.

<sup>11</sup>Erasmus Haworth, Annual Bulletin on Mineral Resources of Kansas for 1897 (The University Geological Survey, Lawrence, Kansas, 1898), 33-34.

<sup>12</sup>Douglas, "Manufacturers," 167.

<sup>13</sup>Ratzlaff and Walther, "Crawford County," 9

<sup>14</sup>Clark, Towns and Minerals, 29.

<sup>15</sup>Ibid.

<sup>16</sup>G. E. Abernathy, "Oil and Gas in Montgomery County, Kansas," State Geological Survey of Kansas, Bulletin 31 (1940), 20.

<sup>17</sup>South Kansas Tribune, Industrial Edition, Vol. 33, December, 1903.

<sup>18</sup>U. S. Bureau of the Census, Eleventh & Thirteenth Census of the United States, 1890 and 1910; Kansas Bureau of Labor, 23rd Annual Report (1907).

<sup>19</sup>Clark, Towns and Minerals, 20. Also see Pearce Davis, The Development of the American Glass Industry (Cambridge, Mass., 1949).

<sup>20</sup>Clark, Towns and Minerals, 50.

<sup>21</sup>South Kansas Tribune, April 30, 1902; September 17, 1902; August 23, 1905.

<sup>22</sup>Clark, Towns and Minerals, 95.

<sup>23</sup>"Clay Soil Lead to Manufacturing," Pittsburg Morning Sun, May 20, 1976.

<sup>24</sup>Ibid.; Douglas, "Manufacturers," 203-6.

<sup>25</sup>Ibid.

<sup>26</sup>Clark, Towns and Minerals, 55-56.

<sup>27</sup>Ibid., 83-84; William E. Connelly, A Standard History of Kansas and Kansans, Volume 4 (Chicago, 1918), 41, 44.

<sup>28</sup>Clinton Warne, Cement [Kansas Industry Series] (Lawrence, Kansas, 1955), 27-29; Douglas, "Manufacturers," 88.

<sup>29</sup>Ibid., 10; Clark, Towns and Minerals, 49.

<sup>30</sup>Frank C. Schrader and Erasmus Haworth, "Economic Geology of the Independence Quadrangle, Kansas," United States Geological Survey, Bulletin No. 296 (Washington, 1906), 55. Also see Earl J. Hadley, The Magic Powder (New York, 1945), 341. Kansas Bureau of Labor, 23rd Annual Report (1907).

<sup>31</sup>Robert K. Ratzlaff, "Le Hunt, Kansas: The Making of a Cement Ghost Town," Kansas Historical Quarterly, Vol. 43 (Summer, 1977), 203-216.