

## The Musselmen of Yerseke: an ethno-historical perspective

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### LES CONCHYLICULTEURS DE YERSEKE : UNE APPROCHE D'ETHNOGRAPHIE HISTORIQUE

#### RÉSUMÉ

*Une approche d'ethnographie historique décrit et analyse les modes de continuité et de changement dans une communauté professionnelle de pêcheurs de moules et de mytiliculteurs aux Pays-Bas. L'article expose les processus imbriqués des forces endogènes et exogènes, et particulièrement l'impact des transitions écologiques, des interventions de l'Etat, et des fluctuations du marché sur l'évolution de la pêche et de la communauté maritime. L'auteur prête également attention à la transformation de cette pêche artisanale en une entreprise industrielle au cours des années soixante.*

#### 1. INTRODUCTION

Fishing communities have often been portrayed as "primitive isolates" without a history (see the critique in SMITH, 1977a : 5 ; THOMPSON, 1983 :3 ff.). There is, however, a growing awareness that fishing communities and fisheries must be studied in their broader ecological, economic, social and political context (DURRENBERGER, 1988 ; MAIOLO and ORBACH, 1982 ; TAYLOR, 1983 ; KNIPE, 1984 ; SINCLAIR, 1985). Regarding this problem of scale, Smith writes that «the systematic interrelationship linking the interdependent communities, the exploited biomass, and the macroeconomic and political system(s) offers a most attractive analytical elegance» (SMITH, 1977b : 12). Besides considering the linkages of fishermen to the wider society, attention must be given to the historical dimension. Fishing is a dynamic activity, which «must be understood as an historical, economic and political process, as an evolving system» (DURRENBERGER and PÅLSSON, 1985:120).

This paper presents an ethno-history of the mussel fishery and fishermen in the Dutch town of Yerseke. It aims to throw light on patterns of reproduction and transformation in this small-scale trade and discusses the social

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dynamics within the community and the impact of ecological changes, state interventions and market fluctuations. This complex interwoven process of endogenous and exogenous forces shaped the transformation of the fishery and the local community. Thus, a diachronic analysis at the micro- level cannot be seen in isolation, but must be related to changing economic and political structures and market performances at the macro-level.

Four phases in the development of the fishery can be distinguished: (1) a period in which the resources were common property (until the 1860s) ; (2) a phase following the privatization of the commons, which turned capture fisheries into culture fisheries (1860-1933) ; (3) a period of increasing production and market regulation (1934-1967) ; and (4) a "take-off" period ; from the mid-1960s onwards, the artisanal fishery developed into a large-scale enterprise.

## 2. THE SETTING

Yerseke is located in Zeeland, a province in the south-west of the Netherlands. Several inlets and estuaries indent its coastline and divide its territory into islands and peninsulas. The landscape is flat, with altitudes varying from hardly above to slightly below sea-level. Dikes surround the land to prevent flooding. For ages, the coastal dwellers have tilled the fertile soil and exploited the estuarine resources. Nowadays, the major local fishing grounds can be found in the Eastern Scheldt.

This saline inlet penetrates 48 km inland from the North Sea. Its tidal range averages 3.20 m. The large intertidal zones and intersecting deeper channels provide rich econiches, where many species of fish and shellfish abound. The firm seabed of the shallow flats, the constant water salinity, the moderate velocity, and an abundant food supply of phyto-plankton form excellent conditions for the spawning and growth of the common blue mussel (*Mytilus edulis*). Today, the mussel fishery is a semi-culture, practised on plots rented from the state, which vary in depth from 2 to 12 m during high tide. The mussel seed fishery, carried out in spring and autumn, forms the basis of cultivation. The seed are planted on protected grounds demarcated by seamarks, dredged up and deposited on deeper beds several times to stimulate growth. When the mussels are full-grown (within two to three years), they are "rewatered," i.e., planted on special plots for ten days so that they can dispose of sand and silt before being marketed. These grounds are located just off the shore near Yerseke.

Yerseke, now an affluent fishing community, is located at 51°29'N and 4°02'E on the south bank of the Eastern Scheldt. The town is one of the oldest settlements on the peninsula of South-Beveland and the country's foremost centre of shellfish farming and shipping. Its favourable position near urban markets and a good communication network with the hinterland have contributed to its rise as a nucleus of maritime enterprise. Over 70% of the yearly shellfish harvest is exported to such countries as Belgium, France, and Germany.

Currently, the town has a population of approximately 5900. Its economy is dominated by mussel and oyster culture and trade. There are 80 mussel firms in the Netherlands, 36 are based in Yerseke. Other maritime pursuits, like shrimp, lolister and cockle fishing, also provide an important source of employment, as do the six mussel canneries and the twenty odd shellfish processing and packing plants. Yerseke harbours the country's second largest fishing fleet. It consists of a 112 modern diesel-powered boats, ranging from 17 to 40 m in length. Each vessel is equipped with two or four dredges and manned by from two to four crewmen. A large percentage of Yerseke's occupational population depends directly or indirectly on the fishing industry for its livelihood. In 1980, for example, nearly 700 men and women worked in the maritime sector.

## 3. EXPLOITATION OF THE MARINE COMMONS

The town's history as a maritime community is, however, relatively recent. In the 1860s its economic resource base was still mainly agricultural. The village was even landlocked until the 1530s, when floods washed away large

areas of South-Beveland's territory, turning Yerseke and the hamlet of Yersekedam into coastal communities. The sea-change was, however, not solely destructive. It also provided new opportunities for the exploitation of marine resources. In 1784, official documents refer to the local shell fishery for the first time. The firm peaty seabed which had developed off Yerseke's coast provided an excellent base for the settlement and growth of oyster spat and mussel seed, which clustered into vast shellfish banks.

Fishermen from nearby villages started to exploit these banks. Even in the still predominantly agrarian village of Yerseke, some enterprising inhabitants began to switch between farming and fishing. Others, male and female farm-hands especially, gathered oysters, mussels, periwinkles and whelks when the receding tide left large areas of tidal flats exposed. They walked out onto the exposed banks and harvested shellfish using small hand-rakes and baskets. By selling their catch to local merchants or by peddling it in neighbouring towns they could earn extra income. Farm work was slack during the winter months, so the money thus earned could hardly be missed. The majority of eighteenth century villagers were, however, land-oriented.

In the course of the nineteenth century, the number of local full-time and casual "on foot" fishermen and fisherwomen (i.e., those without a boat who collected shellfish at low tide) increased. The implements needed to gather shellfish required only a small sum of money. Thus, many availed themselves of this opportunity and eked out a modest livelihood during the winter. In 1818, the Dutch Reformed church council in the predominantly Protestant village even complained about the "corruption" of morals because many villagers neglected to attend the Sunday services in order not to miss a favourable tide.

Though the full-time fishermen were also petty commodity producers, they had to buy a boat and gear, a considerable investment. Depending on the tide and depth of the water, they used hand-operated dredge-nets or long mussel-rakes. Sometimes they used shorter hand-rakes when sailing was impossible due to exposure of the flats. In the 1820s, Yerseke harboured ten sloops of types called *hoogars* and *hengst*, flat-bottomed boats adapted to sail the shallow estuaries. These crafts were manned by a crew of two or three, usually agnatic kinsmen. In addition, the village counted some forty boatless gatherers.

Though all Zeelanders held equal access rights to the common property marine domain, *de facto* entry to its resources was often limited because local fishermen claimed customary rights over the shellfish beds near their residence. Sometimes they even used violence against outsiders who fished on "their" grounds (van Ginkel 1988, 1989a, 1989b). This "culture of the commons" notwithstanding, occasionally more than 200 vessels crowded the most productive niches. Hence, the menace of overexploitation loomed large.

In 1825, the government assigned the management of the local waters to the Board of Fisheries for the Zeeland Streams (Bestuur der Visscherijen op de Zeeuwsche Stroomen). It regulated fishing-gear and methods, seasons, minimum sizes of marketable shellfish, demanded a modest licensing fee and patrolled the waters to enforce the rules. This state intervention was supposed to stop overfishing, but poaching and fishing illegally became a widespread phenomenon. Sometimes, this caused conflicts among fishermen. Crews fishing off season, for example, were confronted by colleagues who tried to prevent that "their" shellfish beds were plundered by non-locals before the season started. Thus, the new regulations could not prevent that depletion of natural shellfish beds continued.

By the 1860s, hundreds of artisanal shellfish fishermen and boatless gatherers exploited the Zeeland estuaries, providing a meagre subsistence to many households. Though the monetary rewards were small, the fishing industry expanded due to demographic growth in the province, which could not be absorbed by employment in agriculture. Yerseke's population, e.g., grew from 560 in 1817 to 854 in 1860. Many took to fishing and the local fleet expanded to 24 boats in 1867. Yet the village was one of the poorest fishing communities in the country. Scores of villagers found themselves in dire straits and had to be supported by public assistance committees. The widespread poverty was closely linked to the undependability of the market, a shrinking supply of shellfish due to resource depletion, and vehement competition. Yerseke would, however, soon become the scene of radical transformations spurred by the privatization of the marine commons.

#### 4. PRIVATIZED SEA TENURE

In 1865, the Board of Fisheries privatized several mussel banks in the Eastern Scheldt. The Board demarcated plots and allocated these for the duration of ten years to musselmen by the drawing of lots. Henceforth, mussel fishermen gained exclusive access rights in return for a modest rent of a few florins. The plots were reallocated ten-yearly. Capture fisheries gradually turned into culture fisheries, though there were still grounds where a free mussel fishery was permitted. The new mode of production was essentially a semi-culture. The production of mussel seed was left entirely to nature. The musselmen had to catch young mussels or seed and plant these on plots until they reached a marketable size. Thus, mussel farming came to rest on a successful seed fishery. The transition from a fishery to a semi-culture led to an increase in output, but did not cause dramatic changes in the social structure of the occupational community of musselmen and labour remained the most important factor of production. A transition from free oyster fisheries to oyster farming did, however, have a tremendous impact upon the social relations of production.

In 1870, the state privatized several oyster banks in the Eastern Scheldt and other Zeeland estuaries. Extensive underwater grounds were divided into five and ten hectare plots, which could be leased at public auctions. The highest bidders gained exclusive access rights. This measure attracted many wealthy urban capitalist entrepreneurs and this in turn brought about a rapid capitalization and industrialization of the oyster industry (VAN GINKEL, 1988, 1989a, 1989b). Shellfishing rapidly gave way to mariculture. By 1886, all banks suitable for mussel and oyster farming were privatized.

Within decades Yerseke became the Dutch centre of oystering. Most of the newcomers to the industry established their firms and companies in Yerseke because in 1866 the town was connected to an international railway network, contrary to most of the other important Zeeland shellfishing communities, such as Bruinisse, Tholen and Philippine. The town received a huge fillip from the spread of railways and the boost to consumption provided by the steadily improving standard of living at home and abroad. In the wake of this development the village turned into a relatively affluent country town which attracted many migrants. By 1895, its population had quintupled to 4338. Many new edifices and streets were constructed and a new harbour was built. From merely fifteen sailing craft in 1860 the local fleet expanded to a 160 boats, including ten steam-powered vessels, by 1900.

The new mode of production in the oyster industry initially resulted in a loss of independence of the existing oystermen. Most of them could not afford to pay the lease fees, which skyrocketed soon after the introduction of the auctions. They either became wage-labourers for one of the newly established companies or oyster barons, or turned to musseling (VAN GINKEL, 1988). The boatless gatherers, whose domain was drastically reduced, did not have the latter possibility. The majority had to get a job in the oyster industry. After an initial period of remarkable successes, the oyster trade suffered some serious setbacks, whereupon many workers were sacked. Hundreds decided to emigrate to the United States (TAYLOR, 1983).

Compared to oyster culture, musseling was far less labour and capital intensive. The required means of production still consisted of a flat-bottomed sailing boat, three dredges and other gear. The fees for the rent of mussel plots remained modest. In contradistinction to the oyster trade, the mussel industry did not undergo a phase of rapid capitalization because the monetary rewards were lower and plots were not up for public bidding but allocated by lot. Moreover, the oyster planters and shippers had to invest in the building of culling and packing shops, storage basins and also had to spend much money on labour. Besides, a free mussel fishery was permitted in the Zuiderzee and Waddenzee, over 200 km north of Yerseke. The musselmen dredged up young mussels there and replanted them on plots in Zeeland waters or sold them to other fishermen.

Following the growth of the oyster industry, the number of musselmen also increased. Given the lower capital investment required in this branch of trade, many fishermen turned to musseling. Whereas the oyster trade became strongly stratified, the occupational community of musselmen stayed fairly egalitarian. All mussel fishermen

operated independently in family firms, possessed similar means of production, and had equal opportunities to rent plots by participation in the drawing of lots. Even though the profits were considerably smaller than those that could be obtained in oystering, those who possessed little money but valued their independence became musselmen. Since the vessels were still relatively small and cheap, it was feasible for every crew member, given reasonable luck, arduous labour, and a degree of thrift, to aspire to own his own boat. Turn of the century Yerseke counted approximately 90 musselmen, and several fishermen who also fished oysters, lobsters, crabs, periwinkles and whelks. Not only were they small commodity producers, many were fish mongers, too. They sailed to Belgian cities like Antwerp, Brussels, Ghent and Mechlin and sold their catch to merchants, market vendors and peddlers. If few buyers showed up, they tried to hawk the merchandise themselves, taking the bivalves on wheelbarrows from door to door in Flemish places along rivers and canals. Each year, they exported 20000 to 30000 tons of mussels this way.

In the early decades of the twentieth century, vehement competition for a share of the market resulted in continual overproduction. A similar process had also occurred in the oyster trade. Given the imbalance between supply and demand, prices dropped. As a result, most musselmen tried to increase production to maintain or improve their standard of living. This solution to the "peasant dilemma" (WOLF, 1966: 15) only exacerbated the situation, of course. Things became even worse when due to the motorization of the fleet the supply of mussel seed shipped home from the Waddensee increased. Many Yerseke musselmen quickly adopted the new technology of mechanical power. Since the auxiliary engines were not very powerful, they were often still dependent upon winds and tides. The musselmen also began to use winches to haul in the dredge-nets. Mussel-rakes were by now only applied to collect marketable mussels from the rewatering plots. Their willingness to innovate gave the Yerseke fishermen the lead over their main competitors, the Bruinisse musselmen. Yerseke's mussel fleet outgrew that of Bruinisse, the more so because in 1911 a storm irreparably damaged scores of Bruinisse boats. Moreover, the mussel trade came to be concentrated in Yerseke, because of its location near the underwater grounds and urban markets and its good connection to international communication networks.

During the First World War, export became increasingly difficult. Though the Dutch were neutral, the acts of war and restrictions imposed by the occupying German authorities in Belgium hampered a free trade. A boom in mussel preservation, a cottage industry involving the cooking, shelling and salting of the molluscs, slightly alleviated the problems. By this time there were also two mussel canneries which processed considerable amounts of bivalves. After the war ended, a rise of the rent fees, unfavourable exchange rates, and declined purchasing power in Belgium and France created additional problems to the musselmen. A contemporary report states that «the mussel fishery is in a bad state. Some fishermen blame the exchange rates, which is partly true, but the main cause is that the mechanical power cannot sustain the fishery. Motors are installed in ever more boats because without them the fishermen are unable to compete» (B.V.Z.S, 1921:106). The motorization and the introduction of mechanical dredges caused an increase of supply and a concomitant fall in prices. Early innovators were at an advantage over those who continued to use sailing boats. This was especially true for the seed fishery and the trade to Belgium. There was growing antagonism between those with and those without motorized craft. The latter requested to ban the use of mechanical power in the seed fishery, to no avail, however. Some even feared that a few wealthy persons would monopolize the mussel trade and that they would oust the small planters from the fishery. The petty fishermen, however, responded in time and also motorized their sailing craft. Thus, in 1932, a biologist could still observe that «mussel farming is exclusively a small-scale enterprise» (HAVINGA, 1932 : 58).

Several times the culturists tried to reverse the industry's impairment. They established cooperatives and unions which introduced quotas, quality standards and minimum prices. However, these measures failed time and again because there were always farmers and shippers who did not join, or refused to live up to the voluntary regulations. In 1917 and 1927, e.g., unions of Zeeland mussel planters were established at the initiative of Yerseke and Bruinisse musselmen. Both were liquidated within a few years. The problem was that several planters who did not join sold their mussels under the bottom price. Some members evaded the regulations, while at the same time benefitting from them. They favoured their own private interests above those of the mussel industry as a whole.

Through the 1920s, overproduction, low exchange rates and low prices continued to weaken the industry. Though there were also some good years, a growing number of small culturists had to ship the bivalves to Belgium themselves to earn extra money. Several occasionally worked as wage-labourers for oyster companies or pursued rays, lobsters, flounders and eels which they sold to shellfish dealers. This variety of diversification strategies enabled domestic commodity producers to survive and even expand.

## 5. STATE INTERVENTION : PRODUCTION AND MARKET REGULATION

In the 1930s, the state intervened in the ailing industry to control the disrupting consequences of the general economic crisis. In 1934, it issued the Mussel Crisis Measure, (Crisis Mossel-besluit). This management regime finally introduced the measures which organizations of musselmen had also proposed, but had been unable to enforce. All mussel fishermen and dealers had to join the Dutch Fishery Marketing Board (Visscherijcentrale). The Board set minimum prices for export mussels. The home market remained free, however. Soon Belgian dealers started to work with Dutch middlemen to evade the price regulations. To counter this situation, in 1935 the Central Sales Bureau of Mussels (Centraal Verkoopkantoor van Mosselen) was established, partly at the instance of the planters, who suffered most from the evasion of the price regulations. Henceforth, all transactions between planters and shippers had to be made via the Bureau, which acted as an intermediary between these two categories, buying mussels from the fishermen and selling them to the dealers. Subsequently, it set quality standards and introduced fixed prices, both for mussels sold to the Bureau as well as for mussels sold by the Bureau to the shippers. Moreover, it regulated the admittance of newcomers to curb the expansion of the number of planters and introduced a licensing system for shippers, thus reducing the number of musselmen who were allowed to ship their own merchandise. By the mid-1930s, 60% of the export trade was in the hands of Yerseke shellfish dealers.

The measures were successful and the position of the culturists improved. However, a new boom in output followed. In 1938, the Bureau responded by allocating production quotas to all individual musselmen, based on their estimated production in earlier years. Henceforth, each planter was allowed to supply a certain quota at a given time to the Bureau, which issued the orders. This rigid regulation of the industry, aimed at balancing supply and demand, proved adequate. It had a stabilizing influence, though it also brought about a fixation of its structure and limited the expansion of individual firms. Endogenous dynamics were thus restricted by external constraints. The majority of the firms were still small-scale family owned and operated businesses, though there were also some large entrepreneurs. The number of musselmen who kept sailing to Belgium started to diminish, not only due to restrictions imposed by the Bureau, but also because the transportation of bivalves was gradually taken over by trucking companies.

When the mussel industry had hardly recovered from the crisis of the 1930s, the Second World War broke out. Many boats were confiscated, damaged or destroyed, fuel was scarce, export made impossible and several Yerseke fishermen were forced to work as convicts on the German island of Wyk auf Föhr. Production came to a near standstill. Moreover, the Germans demanded the best part of the yearly mussel supply.

After the war ended, the Dutch government reduced the rents to stimulate the industry's recovery. Nonetheless, this was a difficult time, due to the damages inflicted upon the fleet. Following two good years, things appeared to get even worse. In 1950, a parasitic copepod, *Mytilicola intestinalis*, killed a large proportion of Zeeland mussels. Some musselmen lost over 80% of their stock. The shippers were consequently unable to supply customers. The culturists and dealers were powerless against this ecological disaster and feared that it presaged the end of musseling in Zeeland.

## 6. EXPANSION OF THE MUSSEL INDUSTRY

Paradoxically, however, this catastrophe precluded a phase of capitalization and expansion. Some enterprising musselmen gained permission to cultivate plots in the Waddenzee, until then a location used for seed fishing only (VAN GINKEL n.d.). Soon all Zeeland musselmen relocated parts of their production areas to the Waddenzee. Moreover, the mussel parasite vanished from the Zeeland inlets within a few years. Thus, there was an enormous expansion of the total available area of plots, which increased from 4000 to 10000 hectares. Since demand had also risen, the Bureau considerably extended the individual quotas.

The relocation of many production areas to the Waddenzee implied that larger boats were needed. This changed the balance of forces of production from labour being more important to capital becoming more important. The musselmen had to invest in new equipment and stronger boats or innovate their old vessels, some originally built in the late nineteenth century. A period of rapid modernization ensued. Mussel-rakes fell into disuse, the broadcasting of seed, formerly shoveled overboard by hand, was mechanized, steel hulls replaced wooden ones, and the tonnage and motor-power of the boats increased. Many small firms could no longer compete. Especially those owned by older musselmen without heirs were sold off to large planters. The industry's social organization remained based on family firms, however.

By the late 1960s, only a few petty culturists tenaciously held on to their occupation. They were gradually ousted from the business when in 1967 large-scale planters and dealers persuaded the Ministry of Agriculture and Fisheries to withdraw most of the protective measures introduced in the 1930s. The quota system was abandoned and henceforth mussels were sold at a free auction in Yerseke, though bottom prices were maintained. Soon, prices and production boomed. These changes worked to the advantage of the large culturists and to the detriment of the petty planters, who were unable to keep pace with the developments because they lacked the funds to modernize.

The position of Yerseke's mussel culturists and dealers was fortified when their Bruinisse and Philippine competitors were confronted with major setbacks. Philippine's harbour and the nearby underwater grounds of the Braakman estuary slowly silted until the harbour could no longer be reached and the mussel plots had become useless by the mid-1950s. Another problem assailed the Bruinisse musselmen. In 1953, a flood disaster struck Zeeland. Five years later, the government decided to dam off all inlets but one in the province. Thus, in 1971, the Grevelingen inlet - an important mussel farming location of the Bruinisse culturists - was closed off by a dam, rendering mussel cultivation impossible. The Yerseke fishermen faced a similar problem, because the Eastern Scheldt was scheduled to be shut off from the North Sea some years later. However, growing opposition by fisher folk and environmentalists led to a reconsideration of this decision. In 1976, Parliament approved the construction of a storm-surge barrier which would maintain the tidal regime. This meant that mussel and oyster farming in the Eastern Scheldt would remain possible. Hence, the Yerseke culturists did not have to cope with the difficulties which troubled their Bruinisse colleagues. It were not just external causes which contributed to Yerseke's rise as the country's major musseling centre, however. The fact that the oyster industry was also concentrated in Yerseke stimulated the mussel trade, since many shellfish dealers shipped both oysters and mussels and other (shell)fish, too. Moreover, the town's convenient location was an impetus for the establishment of packing plants and canneries, which in turn were large users of bivalves cultivated by local musselmen.

Over the last two decades the industry is characterized by increases in scale, mechanization and a declining number of firms. In Yerseke, the number of firms decreased from 61 in 1960 to 36 in 1985, in the Netherlands as a whole their number dropped from 143 to 80 during the same time span. Thus, the expansion of the mussel industry as a whole brought about the demise of small firms. Today, the state follows a very restrictive policy with regard to the admittance of newcomers. Only those inheriting a family business or experienced employees who want to set up their own enterprise can get a license, provided that the total number of firms does not grow. Despite all these transformations, the mussel industry has always rested on family businesses, a powerful source of continuity.

## 7. CONCLUSION

This ethno-historical case-study shows that Yerseke musselmen have adapted themselves to great ecological and political-economic changes. In spite of economic expansion and capitalization of the industry, the traditional system of ownership and social organization has remained, though the petty farmers were ousted from the business in a recent period of modernization. Domestic commodity production survived this long because the family firms were able to adjust to the problems they faced. They were very flexible: the musselmen and members of their families expanded production, curtailed consumption, diversified, and increased investment of their own labour to compensate for temporary losses during bad periods. These strategies enhanced their "shock-absorbing capacity" (LÖFGREN, 1972:103).

The transformation of the fishery and fishing community cannot be fully understood by merely paying attention to internal dynamics, however. External forces play an important role in shaping local opportunities and restrictions. Fluctuating market conditions, state regulations, non-local competitors to a large extent determine the development of local fisheries and maritime communities, as this paper has tried to show. In future research, more attention has to be paid to the articulation of local dynamics and processes in the wider society. By taking this approach, I have attempted to avoid the pitfall of portraying a community as a static, isolated and self-sufficient social configuration, because «the integration of community into regional and national processes is as decisive for community and region as local ecological and social relations» (COLE, 1977 : 374). We need more research to find out which routes of change are possible and in how far the outcome is the result of internal choice or external pressure. The holistic framework of ethnohistory will no doubt prove valuable in this endeavour.

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