

The “Machine of the Commons”: The Community Factories of Lesvos as a Model of Social and Solidarity Economy

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Abstract: This paper examines the historical phenomenon of the community-owned factories of Lesvos (19th–20th century), known as the “Machine of the Commons,” as an original and historically significant example of social and solidarity economy within the framework of the Greek communal institutions (koiná) of the Greek populations under Ottoman rule. These initiatives combined productive economic activity with educational and social contribution. Through the study of archival material, historical sources, and contemporary research, the article highlights the uniqueness of such ventures - found in places such as Lesvos, Chios, Kalymnos, and elsewhere - which operated according to principles of collective small-scale ownership, democratic management, and the reinvestment of profits for public benefit. The findings show that the community factories of Lesvos functioned as precursors to modern cooperative forms such as Social Cooperative Enterprises (KOIN.S.EP.), achieving at the same time economic sustainability, social contribution, and educational development. The study concludes by proposing ways in which this historical experience may inform contemporary discussions on alternative forms of organizing labor and the economy.

Keywords: *Social and Solidarity Economy, Community-Owned Factories, Lesvos, Machine of the Commons, Communitism, Greek Commons, Lifelong Learning, Local Development, Collective Ownership, Social Cooperatives.*

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I. INTRODUCTION

In nineteenth- and early twentieth-century Lesvos, during the period of Ottoman rule and in the context of the First Industrial Revolution, a remarkable and unique European phenomenon emerged: the creation of more than 113 steam-powered olive-processing factories, many of which belonged not to private individuals, but to local communities. These initiatives, known as the “Machine of the Commons,” constituted an innovative form of communal entrepreneurship that combined productive activity with educational and social contribution within the institutional framework of the Greek communal structures (koiná). Such initiatives contributed significantly to the rise of the middle and lower social strata onto the economic and political stage during the late phase of Ottoman rule and the early stages of the First Industrial Revolution.

The historian Eurydice Sifnaiou, in her study “Industry and Communitism”, notes that “These community factories

surpass, according to contemporary criteria, the limits of social and solidarity economy and additionally embrace lifelong learning and the civic identity of the citizen before these concepts even existed” (Sifnaiou, 2007).

This observation is particularly important because it highlights the long-term significance of the communal model and the foresight of the communities of Lesvos, which implemented practices that today form part of international academic discussions.

The Social and Solidarity Economy (SSE), as it has been institutionally developed in recent decades, is based on principles such as the primacy of people over capital, the democratic decision-making, the collective ownership and the reinvestment of profits in the community (Kavoulakos & Gritzas, 2015). This paper argues that the community factories of Lesvos constitute a historical precursor of these principles, offering valuable lessons for contemporary debates on alternative economic models.

A further clarification should be made regarding the term “communitism” as it is used in this article. Historically, it refers to a tradition that can be traced back to the classical Greek communal structures of ancient democracy (for example, the Athenian model), where political organization was based on direct democratic participation. Decisions were taken by citizens through assemblies and referenda. This tradition evolved historically through the small-scale communal structures of the Byzantine period—such as the *Eleftherochoria* and *Mitrokomeiai*—and through the broader civic organizations of the Byzantine capital. It later became the vital institutional foundation of Greek communities during the Ottoman period, placing at its core the governance of a municipality, region, or state by free citizens who possessed individual property (small-scale ownership). At the same time, economic life was organized through community-based or cooperative entrepreneurial structures, typically composed of small or medium-sized family enterprises. These operated within a framework of relatively egalitarian development inside politically organized communities characterized by direct democratic practices.

Modern Greek communitism, interpreted through a contemporary direct-democratic perspective, has once again become relevant as a political and institutional proposal in the modern era. It incorporates the core elements of the classical model while considering new social, geo-economic, and political conditions, as well as the needs of contemporary society.

The distinctive feature of classical communitism is its transcendent political orientation, which stands beyond conventional ideological classifications. It cannot easily be placed within the modern political spectrum. Importantly, it does not define the individual or society in general as the central political subject; rather, it places at the center the political community, understood through the concept of the person as the synthesis of individual and collective will.

The originality of this research lies in the systematic study of archival material and oral testimonies that reveal the functioning, organization, and social impact of the community factories, as well as in the effort to connect this historical experience with contemporary challenges facing the social economy.

II. HISTORICAL CONTEXT: LESVOS UNDER OTTOMAN RULE

A. *The Regime of Autonomy*

Lesvos remained under Ottoman rule until 1912, a circumstance that granted the island a regime of relative autonomy through the communal system. Due to its strategic geographic position as a gateway to Asia Minor and the Black Sea, the island developed into an important productive and commercial center of the Eastern Mediterranean. Greek communities living under Ottoman sovereignty maintained significant self-governing capacities, which allowed for the development of original economic institutions (Karavidas, 1935).

The economy of Lesvos was largely based on olive cultivation, with the island producing large quantities of high-quality olive oil. However, the existence of many small and medium-scale olive producers created structural problems, as these producers were often dependent on privately owned olive presses that imposed unfavorable terms for processing their harvest. Private olive-mill owners frequently exploited the producers’ need to process their crops quickly, charging excessive processing fees or offering very low prices for the oil.

B. *The Emergence of the Communal Cooperative Idea in the Aegean*

Within this context, the idea emerged in Lesvos to establish community-owned olive presses that would belong collectively to the inhabitants and serve the common interest. This initiative was not merely an economic decision but also a political one. It reflected the deeply rooted communal and direct-democratic traditions of the Aegean islands and the conviction that collective action was necessary for economic survival and prosperity.

Konstantinos Karavidas, the major theorist of Greek communitism, observed that Greek communities under Ottoman rule developed advanced forms of economic organization precisely because they retained significant political autonomy (Karavidas, 1958). The case of Lesvos confirms this observation: communal self-governance formed the institutional foundation for the development of collective entrepreneurial ventures.

Another classic example illustrating the cooperative tradition of Greek communities can be found in the mastic-producing cooperatives of the neighboring island of Chios, particularly in the villages of the island’s southern region known as the *Mastichochoria*. Mastic is a unique natural product produced exclusively in southern Chios and historically associated largely with women’s labor. During the Ottoman period, certain mastic villages developed a communal system of collaboration among women known as the “*synthrofisses*” (literally “companions”), also referred to as *esmichtes* or *daneikes*. This represented a distinctive form of female collective organization, solidarity, and cooperation, extending beyond work itself and permeating the broader social life of the community. In the oral testimonies archive of the Chios Mastic Museum, the following description appears: “In the mastic villages we clean mastic... for others.” This phrase reflects the practical embodiment of the ontological concept of the person, a fundamental element of Greek communalism.

Another testimony recalls: “We had good company. In those days people were affectionate—very affectionate. In the past we would gather in the evenings to clean mastic together, staying up all night in groups. These companionships started from school. I still see my companions; they remain my friends. One went to America, another to Australia, another lives in Athens—but whenever they come back in the summer, we gather together again.” (Archive of the Chios Mastic Museum, 2016)

In order to ensure the continuation of mastic cultivation, a new administrative and taxation system was introduced during Ottoman rule. This system granted important privileges and tax exemptions to the mastic-producing villages in exchange for delivering a fixed quantity of purified mastic to the Ottoman official responsible for the product (the Agha or Emin of Mastic).

The inhabitants of the mastic villages were exempted from forced labor obligations and several other taxes, while also enjoying religious freedom and local self-administration (Archive of the Chios Mastic Museum, 2016). As a result of these privileges, local societies flourished: settlements became densely populated, houses grew larger and more elaborately decorated, and the level of relative freedom granted to Chios because of its valuable mastic production became historically significant.

III. THE “MACHINE OF THE COMMONS”: STRUCTURE AND OPERATION

A. *Collective Ownership*

The community factories of Lesvos were steam-powered olive presses owned collectively by local communities and managed by communal councils. The main driving force behind their establishment consisted of small and medium-scale olive producers, as well as returning migrants who had acquired capital and experience abroad.

Sifnaiou (2007) notes that “Small and medium-scale olive producers, together with returning migrants, were at the forefront of their establishment. They sought to put an end to the exploitation imposed by private olive presses and to create an enterprise serving the common good”.

Each of the 113 factories employed approximately six to eight workers and craftsmen for four to six months per year, corresponding to the olive-harvest season. The tax obligation toward the Ottoman authorities was fulfilled through the deduction of a tithe (approximately 12.5%). Ownership was collective, and participation in communal affairs was nearly universal through the institutions of communal self-governance.

The steam-powered factories of Lesvos also maintained export networks reaching as far as Trebizond, Chalkidiki, Antalya, and southern Russia, demonstrating the economic dynamism of the system.

B. *Democratic Management*

The factories were administered by committees elected by the community. These governing bodies were accountable to the community assembly, while decisions concerning investments, pricing policies, and the distribution of profits were taken collectively. This democratic structure ensured that the factories served the interests of the community rather than private profit.

The communal administrative system included institutional roles similar to those found in other Greek communities of the period, such as the mastic villages of Chios

(Archive of the Chios Mastic Museum, 2016). Transparency in management and institutional accountability were fundamental operating principles.

Each village’s communal administration was exercised by an elected council of elders (Dimogerontia). Authority was exercised by one or more elders depending on population size, assisted by other officials such as: Epanepitropoi (supervisors), Goumenoi (administrative overseers), Viglatores (watchmen or guards) and Dragates (agricultural wardens). These officials were elected “epi synaxei”, that is, during the communal assembly. The administrative system of the mastic villages included five key institutional roles: Vekilides, Gerontes (Elders), Epanepitropoi, Viglatores and Mnēmones.

The Vekilides, also called Commissioners, functioned as inspectors or mayors of the mastic villages. They were usually elected annually by the Elders and were responsible for adjudicating disputes between citizens or between citizens and outsiders. They also appointed the Mnēmones, who served as guardians of the community’s interests. Their responsibilities included supervising education, attending school examinations, ensuring the maintenance of roads, and enforcing public health regulations. The Gerontes were elected in an assembly of elders, the chief priest, and the local notables, and served for one year. Their expenses were covered by the communal treasury. The Epanepitropoi were elected for a one-year term and supervised all communal affairs, overseeing the administration of the village. Finally, the Viglatores were responsible for guarding both the sea and inland areas, with their primary mission being the prevention of smuggling - especially of mastic (Archive of the Chios Mastic Museum).

C. *Reinvestment of Profits in Education and Social Welfare*

Perhaps the most distinctive feature of the “Machine of the Commons” was the way in which its profits were used. Unlike private enterprises, where profits are distributed to individual owners, the community factories reinvested their surplus in projects serving the collective welfare of the community. These included:

- Educational infrastructure: the establishment of new schools in Agiasos, Eresos, Agia Paraskevi, Polichnitos, and Mantamados.
- Funding for educational activities: scholarships for students, support for teachers, and the operational costs of schools.
- Social welfare: assistance for the poor, health facilities, and care for the elderly.
- Cultural initiatives: festivals, libraries, and cultural associations.

Sifnaiou (2007) emphasizes that “The establishment of new schools, as well as the financing of educational activities, constituted the primary outcome of the revenues generated by these factories. Education and training were a communal priority”.

Many scholars have interpreted this development as a new expression of communitism, one that prioritized the needs of economically weaker social groups. A transition also occurred

from strictly local concerns toward a broader educational vision, symbolized by the impressive architectural complex of the “New Schools.” These institutions embodied an attempt to reconcile what might appear to be contradictory concepts in the context of the First Industrial Revolution - social ownership and industrial production.

IV. CHARACTERISTIC EXAMPLES OF COMMUNITY FACTORIES

A. *The Factory of Agia Paraskevi*

One of the most characteristic examples was the community factory of Agia Paraskevi, a town in northern Lesvos. Founded in the late nineteenth century, the factory operated continuously until the mid-twentieth century. It was established by small olive producers who pooled their resources in order to construct a modern steam-powered olive press. The profits generated by the factory financed the town’s schools, including the famous Girls’ School (Parthenageion) of Agia Paraskevi, which provided education to girls at a time when female education was far from widespread. In addition, the factory supported the local library and cultural association, thereby contributing significantly to the intellectual and cultural development of the area.

B. *The Factory of Mantamados*

Another important example was the community factory of Mantamados, a town in northeastern Lesvos. Mantamados was well known for its tradition of pottery craftsmanship, and the communal olive press complemented this economic activity. The profits of the factory contributed to the financing of technical education, enabling young people to learn pottery and other crafts. In this way, the community developed an integrated system of vocational training.

C. *The Factory of Agiasos*

The town of Agiasos, located in the mountainous region of central Lesvos, was renowned for its strong cultural traditions and educational institutions. The community factory there supported local schools and cultural activities, helping to establish Agiasos as a regional center of learning and culture.

The case of Agiasos is particularly significant because it illustrates the close relationship between economic development, education, and cultural life, which constituted a defining feature of the communal model (Sifnaiou, 2007).

V. THE RELATIONSHIP WITH EDUCATION: A PIONEERING APPROACH

The connection between the community factories and education was not accidental but rather reflected a conscious choice made by the communities themselves. Education was regarded as the foundation of collective prosperity and cultural continuity.

A. *Funding of Schools*

The factories provided critical financial support for schools during a period when the Ottoman state offered very limited assistance to Greek education. This support allowed

communities to maintain high-quality educational institutions, to hire well-trained teachers, and to ensure that education was available to all children regardless of their families’ economic circumstances.

B. *Scholarships for Higher Education*

Many community factories established scholarship programs that enabled young people to pursue higher education in major cities of the Ottoman Empire—such as Constantinople and Smyrna—or in European cities such as Athens, Vienna, and Paris. These scholarship recipients frequently returned to their communities and contributed their knowledge to local development, thereby creating a virtuous cycle of knowledge, education, and social progress.

C. *Vocational Training*

The factories themselves functioned as centers of vocational education. Young people acquired practical skills in olive processing, machine operation and mechanical maintenance.

These technical skills could also be applied to other economic activities. This practice represents an early form of work-based learning, which today is widely recognized as essential for the development of professional skills.

D. *Lifelong Learning in Practice*

The “Machine of the Commons” embodied the principle of lifelong learning long before the term became widely used. Adults continuously learned new techniques, adapted to technological changes, and participated in educational initiatives financed by the factories. This continuous process of learning contributed to the resilience and adaptability of the communities.

VI. THEORETICAL SIGNIFICANCE: A PRECURSOR OF THE SOCIAL AND SOLIDARITY ECONOMY

The community factories of Lesvos can be regarded as precursors of what is today referred to as the Social and Solidarity Economy (SSE). The internationally recognized principles of SSE are clearly present in the Lesvian model.

A. *Primacy of People over Capital*

The factories were established in order to serve the needs of the community, not to maximize profit. Decisions were taken based on the collective interest of the community rather than on the highest possible return on investment. This principle constitutes a fundamental pillar of contemporary SSE (Federici, 2012).

B. *Democratic Decision-Making*

The management of the factories was democratic, with the community assemblies having the final authority in major decisions. This system stands in clear contrast both to private enterprises—where decisions are made by owners—and to state enterprises—where decisions are made by bureaucratic administrations.

Democratic governance of economic units is a central principle of the Social and Solidarity Economy (Kavoulakos & Gritzas, 2015).

C. Reinvestment of Surplus

Profits were reinvested in the community rather than distributed to individual owners. This ensured that the benefits of economic activity were shared broadly and contributed to the long-term development of the community. This principle corresponds closely to modern ideas concerning social dividends and collective benefit.

D. Social and Environmental Responsibility

The factories operated with a strong sense of responsibility toward both the community and the environment. They provided employment, supported education, and implemented sustainable practices in olive processing. Today, social and environmental responsibility constitute key pillars of corporate social responsibility and sustainable development.

VII. COMPARISON WITH OTHER COMMUNAL ECONOMIC MODELS IN GREECE AND EUROPE

A. The Sponge-Fishing Communal System of Kalymnos and the “Thimonia” of Folegandros

The constitutional charter of the community of Kalymnos reveals that the Greek populations living under Ottoman rule in the nineteenth century followed closely the historical institutional tradition of Greek communal society. This tradition adopted the community-city (*koinon-polis*) as the fundamental social structure and essentially embraced a democratic political order. In this respect, it differed fundamentally from the despotic regimes’ characteristic of Ottoman—and even European—absolutism.

The political order established by the community of Kalymnos leaves little doubt that the community functioned as a foundational political society, almost as if it were a state with its own institutions, functions, and internal authority. Reference to imperial authority appears only in matters concerning taxation obligations and limited judicial supervision. According to the author of the paper, the community of Kalymnos was well aware of the constitutional system of the Kingdom of Greece but rejected it, choosing democracy instead of monarchy (Kontogiorgis, 2022). From the very first article of the charter, the scope of the community’s autonomy is clearly defined. The community possessed exclusive fiscal authority with regard to obligations toward central power and maintained the right to self-institutionalization. In internal affairs, governance belonged entirely to the community itself. The Ottoman authority had effectively relinquished fiscal control, which was transferred to the city-community. The citizens remained fiscally accountable to the community rather than to the central authority (Kontogiorgis, 2022).

The charter also emphasized several communal responsibilities, the most important of which was education policy, including the “moral and intellectual education of the

inhabitants through the maintenance of well-organized communal schools.

Equally important was the policy of social welfare, which included municipal physicians, communal pharmacies, and broader provisions for the needs of the population. The charter also provided for the support and development of sponge fishing, agriculture, and all productive activities of the island, ensuring the prosperity of the local economy.

B. The Cooperative of Ampelakia

The “Common Company” of Ampelakia (1778–1811), located in Thessaly, is widely regarded as the first agro-industrial cooperative in the world.

It specialized in the processing and dyeing of cotton yarn, exporting its products to Germany, Austria, and other European markets. Like the factories of Lesvos, it reinvested profits into education and communal infrastructure (Kordatos, 1955).

In the late eighteenth century, the inhabitants of Ampelakia - living under Ottoman rule - decided to organize themselves as free citizens within a cooperative structure in order to confront international competition in textile production. Using natural dye derived from the plant *rizari*, they developed a high-quality cooperative production system during the pre-industrial era, leading to remarkable economic and cultural prosperity. The president of the cooperative was Georgios Mavros, known among his German and Austrian clients by the name Schwarz (Pentaris, 2013).

The French consul in Thessaloniki, Félix Beaujour, visited Ampelakia in 1797 and described a society where “The hearts of the inhabitants of Ampelakia are pure and their faces content. The slavery that withers the plains watered by the Peneios River does not reach the slopes of their mountain” (Kordatos, 1955). A similar description could easily apply to the communities of Lesvos.

C. The Mondragon Cooperative

The Mondragon cooperative complex in the Basque Country of Spain, founded in 1956, shares many characteristics with the Lesvian model. These include worker ownership, democratic governance, reinvestment of profits and a strong emphasis on education (Whyte & Whyte, 1991).

Mondragon has become a global model of cooperative development, demonstrating that community-based economic systems can succeed even within modern industrial economies. The similarity with the Lesvos model is striking in both cases, education constitutes the cornerstone of cooperative development. At Mondragon, the educational system began with a vocational school and eventually evolved into a university, following a trajectory comparable to that of the community factories of Lesvos.

VIII. THE DECLINE OF THE COMMUNITY FACTORIES

Several factors contributed to the gradual decline of the community factories.

A. Political Changes

The incorporation of Lesbos into the Greek state in 1912 brought major institutional changes. The newly established state favored centralized administration and neither fully understood nor supported the communal traditions of the island.

Ion Dragoumis had already warned that “The foreign king and his Bavarian organizers copied Western laws and leveling constitutions... instead of studying the communal life of the Greeks and building the state upon it, they crushed it because such communities did not exist in Bavaria” (Dragoumis, 1910).

B. Economic Competition

The development of large-scale private industry in the early twentieth century created competitive pressures that smaller communal factories could not always withstand. Private enterprises had easier access to capital and often possessed advantages in marketing and distribution.

C. Changing Social Conditions

Urbanization and the decline of traditional communal structures weakened the social foundations upon which the factories depended. Younger generations increasingly migrated to cities, and the strong communal bonds that had sustained the factories gradually eroded.

D. World War II and Its Consequences

World War II and the subsequent Greek Civil War disrupted economic life and led to the destruction or nationalization of many productive enterprises. Already weakened, the community factories were unable to survive these upheavals.

IX. CONTEMPORARY RELEVANCE: LESSONS FOR TODAY

Despite their historical decline, the community factories of Lesbos offer valuable insights for contemporary debates.

A. Community-Based Industrial Development

The Lesbos model demonstrates that industrial development does not necessarily require large corporations or state-owned enterprises. Communities themselves can collectively own and manage productive enterprises that serve local needs and contribute to regional development.

B. Integration of Economy and Education

The close relationship between the factories and education shows that economic activity can—and should—be integrated with educational and cultural development. This holistic approach contrasts with the narrow focus on economic indicators that characterizes much contemporary policy.

C. Democratic Economic Governance

The democratic management of the factories provides a historical example of economic democracy in practice. This is particularly relevant today, as communities worldwide

experiment with cooperative enterprises, participatory budgeting, and other forms of democratic economic governance.

D. Resilience through Local Ownership

Community factories strengthened the resilience of their communities by ensuring that economic benefits remain locally rooted. This stands in contrast to contemporary economic systems in which profits often flow to distant shareholders.

E. Model for Social Cooperative Enterprises

Modern Social Cooperative Enterprises (KOIN.S.EP.) in Greece and across Europe can draw inspiration from the Lesbos model. Like the community factories, they combine economic activity with social purpose and are governed democratically by their members.

X. CONCLUSIONS

The “Machine of the Commons” of Lesbos represents a unique chapter in Greek economic history and an important example of social and solidarity economy. Its core characteristics – collective ownership, democratic management, and reinvestment of profits into education and social welfare—anticipate many of the principles that contemporary cooperative movements seek to revive.

The Lesbos model demonstrates that communities can successfully own and manage industrial enterprises and economic activity can be integrated with educational and cultural development. Furthermore, democratic governance of the economy is both feasible and sustainable, local ownership contributes to community resilience and historical traditions can inform modern economic innovation.

At a time when societies are searching for alternatives to neoliberal globalization, economic inequality, and environmental degradation, the “Machine of the Commons” offers a powerful reminder that another path is possible. It shows that when communities organize themselves democratically and act collectively, they can create economic institutions that serve the common good rather than private profit. As Konstantinos Karavidas (1935) wrote: “Communal solidarity offers the community dynamism, self-sufficiency, and autonomy.”

The community factories of Lesbos were a living embodiment of this principle, and their legacy continues to inspire those who seek to build a more just and sustainable economy.

REFERENCES

- [1]. Archive of the Chios Mastic Museum. (2016). Oral testimonies. Chios: Chios Mastic Museum.

- [2]. Dragoumis, I. (1910). *Osoi zontanoi* [Those Who Are Alive]. Athens.
- [3]. Federici, S. (2012). *Revolution at Point Zero: Housework, Reproduction, and Feminist Struggle*. Oakland: PM Press.
- [4]. Geroukalis Dimitrios, Kontogiorgis Giorgos, Meletis Meletopoulos, Christos Dage, Athanasios Moustakis, Elena Sergentaki, Lyvia Koutsaki (2022). *The Communities of the Greeks “The Case of Kalymnos” (Regulation of Demogerontia, Nautical Sponge Fishing Regulation)*.
- [5]. Karavidas, K. (1935). *I koinotiki politeia* [The Communal Polity]. Athens.
- [6]. Karavidas, K. (1958). *I koinotiki paradosi ton Ellinon* [The Communal Tradition of the Greeks]. Athens.
- [7]. Kavoulakos, K., & Gritzas, G. (2015). *Enallaktikoi oikonomikoi choroι* [Alternative Economic Spaces]. Athens: I. Sideris Publications.
- [8]. Kordatos, G. (1955). *Istoria tis Ellinikis Epanastasis* [History of the Greek Revolution]. Athens: Epikairota Publications.
- [9]. Mariadis, S. (2003). *Synergatismos, Synetairismoι: Istoria, Filosofia, Apostoli* [Cooperativism and Cooperatives: History, Philosophy, Mission].
- [10]. Pentaritsas, P. (2013). *I epanastasi tis aftarkeias* [The Revolution of Self-Sufficiency]. Paragka Publications.
- [11]. Sifnaiou, E. (2007). *Viomichania kai Koinotismos: I “Michani tou Koinou” stin Agia Paraskevi Lesvou* [Industry and Communalism: The “Machine of the Commons” in Agia Paraskevi, Lesvos]. Athens: Trochalia Publications.
- [12]. Whyte, W. F., & Whyte, K. K. (1991). *Making Mondragon: The Growth and Dynamics of the Worker Cooperative Complex*. Ithaca: ILR Press.