## Paving, Construction and Fire

## "Solel Boneh" Activity in the Israeli War of Independence

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## **Abstract**

The Israeli War of Independence, which began at the end of November 1947 and ended at the end of July 1949, was not limited to the military struggle between the Jewish defense forces (the Haganah and the IDF which was established from it) and the Arab military forces. With the declaration of independence by the Jewish settlement (*yishuv*) and the invasion of Israel by the Arab armies, the war took on a more total character, as the entire Jewish civil society with all of its resources was called upon by the national institutions to mobilize and assist in the war effort. One of the key expressions of this mobilization was the economic one, which included the mobilization of economic organizations and entire industries from the Jewish economy to assist the Haganah and the IDF in fulfillment and production to meet their ongoing military needs and supply a variety of essential services.

The building and infrastructure company, Solel Boneh which was, in the period before independence, the central operating arm of the unionized workers economy in the Histadrut Labor Federation, filling vital national roles such as providing work for immigrants and unemployed and establishing dozens of settlements throughout the country, was part of this broad mass mobilization. On the eve of the war's outbreak, the company was at the height of its economic prosperity and organizational power since its initial establishment (in 1923) and was operating with an unprecedented workload. Nonetheless, Solel Boneh responded to the appeals of the Haganah and the IDF and committed its great resources and means and its rich professional experience to the war efforts.

The book presents other weighty factors unique to Solel Boneh, apart from its participation in this broad mobilization, that influenced the nature of its mobilization, factors that mainly impacted the scope of the requests for assistance from the national institutions to the company and the scope of its mobilization, which was greater than that of other economic institutions in the Jewish economy. These factors were: a) the many and diverse operating methods at the disposal of

Solel Boneh, making the company able to engage in a variety of operations and tasks connected with the war effort; b) the high level of prior experience the company had in conducting emergency national operations and in military and security work; c) the close unmediated connection that the company had with the Haganah; and d) the key role that the company played in operating the Haifa port, through which most of the procurement cargo connected with the War of Independence passed, and the organizational infrastructure it had established to support these operations.

The book discusses and expands on these factors, and mainly describes the mobilization of Solel Boneh in the War of Indpendence to assist the Haganah and the IDF and other national institutions. This mobilization was directed through two main operating channels. The first was the participation of Solel Boneh in conducting four emergency logistical operations, which had critical importance for breaking the siege imposed on the Jewish settlement in Jerusalem during a significant portion of the war. The four operations were: 1) preparing an alternative route to Jerusalem (the Burma Road), which bypassed the old road to Jerusalem that was blocked by the Arabs during different periods of the war. The new road allowed for transport of weapons, fuel and food from the center and lowland areas to the besieged and isolated city; 2) paving the "Road of Heroism" that replaced the Burma Road and the old road to Jerusalem during the war, and was the only permanent supply route and transportation artery from the coastal plain and the lowlands to Jerusalem; 3) installing a temporary alternative water line to Jerusalem (the Shiloach line), which replaced the old water line to the city that was shut down by the Arabs, saving Jewish Jerusalem from a water shortage and the danger of running out of water; 4) campaigns to transport food to Jerusalem that assisted in creating a food reserve needed after the end of the first truce in the war and the renewal of battles, preventing Jewish residents from reaching a situation of danger of starvation.

The book describes in detail Solel Boneh's activities in these four emergency operations. It also assesses the contribution of these operations to easing the siege of Jerusalem and examines the essential place of Solel Boneh in the operations' successful completion. Solel Boneh was not the only entity that took part in these operations. Apart from the "Shiloach line," which Solel Boneh installed alone as the contractor for the national water company Mekorot, which was responsible for planning and conducting the operation, other entities, both military and civil, were involved with Solel Boneh in each of the other operations. The place of Solel Boneh in each of the other operations and its contribution to their execution are therefore evaluated in the book not only according to the quantitative aspect of the scope of work conducted, but also – and perhaps mainly – in their value aspect. Thus, for

example, in the work to build Burma Road, Solel Boneh was in charge of preparing a short section of the road, called the "Beit Susin section", whose length was only 2 kilometers of the entire route, which was a total of 17 kilometers long. However, the importance of preparing this section of the Burma Road and its use were central and critical. This was the section that bypassed the positions of the Jordanian Legion on the Latrun ridges, which overlooked the road to Jerusalem in the Latrun – Shaar Hagay sections and made it relatively possible to defend against shooting attacks from the Legion soldiers. Without preparation of the road in this short section, which passed over a high ridge and steep, rocky slope and was not passable at all for freight and supply vehicles, it would not have been possible to prepare the complete route to bypass the Legion positions and a large portion of the old road to Jerusalem, allowing for the passage of regular supply convoys from the center of the country to the city.

From the beginning of the first truce and until the beginning of December 1948, the Burma Road served as the main route for delivering weapons, ammunition, and reinforcements to the Jewish defense forces in Jerusalem. These shipments helped to restock the quantity of weapons and ammunition in the hands of the Haganah and the IDF in Jerusalem, which had begun to decrease during the month of May, and the reserve of ammunition at their disposal in the campaign for the city and its environs. Likewise, the Burma Road served during this period as an additional route for transporting supplies of food and fuel to Jerusalem, and in the periods in which the road to Jerusalem was blocked, it served as the main route. This assisted the Jewish *yishuv* in Jerusalem to survive the hardships of the siege, which was relieved even further as the war progressed.

The same can be said for the participation of Solel Boneh in the operation to pave the Road of Heroism. In this case too, Solel Boneh was not the sole entity that prepared and paved the new road. Other bodies, primarily the engineering corps, and also the public works department of the Labor and Building Ministry, carried out the construction. Solel Boneh prepared and paved the second part of the road, which was 14.5 kilometers long, out of the total length of the Road of Heroism of about 40.5 kilometers. In this case too, the part that Solel Boneh prepared and paved was the key section of the three parts of the road. Its importance and centrality were that it bypassed the Legion's positions in Latrun at a greater distance than the "Beit Susin" section and was located completely out of the area of sight of the soldiers and their firing range. It was also important because it made it possible to get close enough to Jerusalem (up to Shaar Hagay, which was this time in the hands of the IDF forces) without the completion of the third and last section of the Road of Heroism, which went to a point closer to Jerusalem (the Castel). The Road of Heroism, which replaced the Burma Road and the Jerusalem Road and was opened

to vehicle traffic in December 1948, allowed for the continuous supply line to besieged Jerusalem until the end of the war, and even served as a lone artery for transportation (civil and military) from the coastal plain and the lowlands to the city.

In contrast, in the campaigns to transport food supplies to Jerusalem which preceded the paving of the Road of Heroism, the value aspect and the quantitative side were clear in the involvement of Solel Boneh. In April 1948 and in the first truce of the war, when the old road to Jerusalem was temporarily open to traffic, and during which time large and massive supply convoys passed through to Jerusalem, Solel Boneh and the largest transport companies in the Jewish sector then, Shalav and Tachbura, were the main bodies that carried out the food transport to Jerusalem. In addition, Solel Boneh took on the role of organizing the transport of the food delivery, and even carried out the armoring of a large portion of the freight vehicles that transported supplies to the city.

However, the food transport campaigns did not exhaust the quota of food that the UN had allowed to be transported to Jerusalem during the first truce. A total of 8,000 tons of food were transported to the city by the old road, which was about 3,000 tons less than the quota of food permitted by the UN to transport during the truce. However, with the camouflaged shipments made to Jerusalem on the Burma Road during the truce, which were not supervised by the UN, and which continued to reach the city also after the end of the truce on July 11, it was possible to bring more quantities of food. These shipments helped to reach the quota, and also apparently to create food reserves which were necessary to prevent the danger of starvation among Jerusalem's residents after the resumption of fighting.

Another important finding presented in the book is that some of the emergency logistical operations had import and value in the political aspect as well. The political and legal status of Jewish Jerusalem as an area under Israeli sovereignty, and as the future capital of Israel, was not clear during most of the war period, and above the city residents and leadership hovered the threat of being cut off and separated from the young country. To finally clarify these issues, and to ensure Jerusalem would be incorporated as part of the state of Israel at the close of the war, it was important to show the UN real evidence of vital Jewish settlement in Jerusalem, with an independent existential and economic basis and with the potential for continued growth. A water line under Jewish ownership and sovereignty (the Shiloach line), that supplied regulated water flow to Jerusalem and provided for the needs of the Jewish settlement in the city, and a new, secure road (the Road of Heroism), which replaced the old road to Jerusalem and enabled constant flow of vehicles to the city, testified to the strong existential basis for Jerusalem, and were important credits in the ongoing struggle of the leadership to turn the city into an integral part of the new state at the end of the war.

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The other channel in which Solel Boneh operated in mobilization for the War of Independence was its involvement in broad activities to equip the IDF and the Haganah and to strengthen their forces in the war. This channel included three main areas of operation: 1) participation of Solel Boneh in independent production for the war needs; 2) participation in activities to establish flight bases for planes of the air service and the air force that developed out of it; 3) aid extended to war procurement operations.

The book describes and details the participation of Solel Boneh in these three operational aspects of the military buildup and examines its value and weight and its contribution to building the IDF units and their operation in the war.

The participation and involvement of Solel Boneh in independent production for war needs was done mainly with Haganah and IDF weapons industry, Taas, which from its inception and throughout the war was occupied with manufacturing light weapons and ammunition and auxiliary means of warfare. Extending assistance to Taas was accomplished on two tracks. In one, Solel Boneh assisted Taas in different ways with smuggling and receipt of massive shipments of machines to produce weapons and ammunition, which were purchased for it in the USA by Haganah activists and imported to Israel during the war and in the two years prior. The company even assisted by making its facilities and factories available to store and hide the production machines and to prepare and get them up and running for ongoing production, and even made its facilities available for setting up two temporary production factories for Taas which operated during the war.

The other track on which Solel Boneh extended assistance to Taas was in actual production of auxiliary weapons and ammunition. This production operation was done in cooperation with Taas and with its managers and workers and was conducted almost until the end of the war. During this operation, hundreds of mortars, tens of thousands of mortar shells, hundreds of machine guns, mines and grenades were produced. The auxiliary weapons and ammunition, whose production was greatly increased during the war, mainly due to the introduction of machines for producing weapons and ammunition purchased in the USA for ongoing production, did not decide the battles against the Arab coalition, who had greater forces of infantry, artillery, armored corps and sea and air forces. However, they had their own value and weight. In the first five months of the war they, together with shipments of light weapons smuggled from Italy to Israel, were a key factor in equipping the Haganah forces. They made it possible for the Haganah to

run supply convoys and transports to Jerusalem and to the north of the country; they also were used in armament of the settlements that were cut off and the partially successful containment of the Arab irregular forces until the arrival of massive shipments of light weapons from Czechoslovakia to Israel at the end of April 1948. The importance and value of autonomous production of auxiliary weapons were also visible in the truces, especially the first one, during which it was difficult to bring weapons into Israel due to restrictions placed by the UN on all sides to the conflict against arming and strengthening their forces in any way.

Solel Boneh was also called upon to assist other entities within the Haganah that were established at the start of the war and later became branches of the IDF. Some of these entities, such as the armored service and the naval service of the Haganah, were established significantly later and with timing that did not allow sufficient time for combat procurement – of tanks and half-tracks in the case of the armored service and battleships and naval artillery in the case of the naval service – before invasion of the Arab armies. The services needed temporary alternative weaponry until the combat procurement arrived in Israel. Another Haganah entity, the engineering service, which dealt with broad works and operations in the initial part of the war, had urgent need of operating equipment that could not be produced through Taas or imported from overseas in time.

Solel Boneh assisted the armored service by preparing temporary vehicles as alternative to tanks and half-tracks, and by building and preparing improvised armored battle vehicles in a metal factory it owned. It assisted the naval service by managing the conversion and preparation of six former clandestine immigration ships for battle. Solel Boneh did this through its subsidiary company for naval work, Haogen, whose workers performed the mechanical upgrades to make three of six ships seaworthy in the Haifa port, also fixing and upgrading other vital systems on the ships. In the work to prepare the immigration ships for battle, Solel Boneh was not the only entity involved. However, the value of its participation in this operation was expressed in the key role played by two of the ships renovated by Solel Boneh (Josiah and Jude and Haganah) in the naval campaign during the war.

These two ships were part of a large flotilla of the navy combat fleet (Flotilla 1) which was comprised of six immigration ships that had been renovated and converted for battle purposes, and this flotilla carried the burden of the naval struggle throughout the war. Because the ships were fast, with better maneuverability and more adapted for battle operation than the rest of the ships, the Josiah and Jude and the Haganah mainly carried out campaign operations of Flotilla 1 and conducted a variety of operations against the Egyptian fleet and against

Egyptian land targets, such as shelling beaches, acts of harassment, imposing a naval blockade on Gaza's beaches, pushing back land forces, and even damaging Egyptian vessels and sinking them. These operations assisted in reducing the advantage held by the Egyptian fleet in battle vessels and firepower and contributed to the success of two military campaigns – Operation Yoav and Operation Horev – that the IDF conducted on the southern front to gain control of the Negev and Beer Sheva.

The third branch of the Haganah that Solel Boneh assisted in production for war needs was as stated the engineering service. During the war the engineering service, and the corps that developed from it, suffered from shortages of skilled personnel and of heavy mechanical equipment, and had difficulty coping by themselves with conducting widespread operations in field engineering. Due to these difficulties and the great experience and skills of Solel Boneh from the pre-state period in building roads, emergency routes, bridges and fortifications, Solel Boneh was mobilized to assist the engineering corps in conducting these missions. During the War of Independence, Solel Boneh thus functioned as an unofficial implementation branch of the engineering corps. Solel Boneh worked in cooperation with the corps units in preparing and building roads and routes with security and strategic importance and mainly conducting widespread fortification and defense works, concentrated in areas such as the Western and Eastern Galilee, the Jordan Valley, the Jezreel Valley, Jerusalem and the Etzion Bloc. As part of these works, Solel Boneh was also involved in producing materials for war assistance and its factories produced tens of tons of anti-tank barriers designed for installation in settled areas, to serve as defense against invasion attempts by tanks and armored forces. Likewise, Solel Boneh produced sections of bridges, with a total length of four kilometers, intended to serve military vehicles crossing canals and water sources.

Another area in which Solel Boneh was broadly active in building and strengthening the IDF's military power was in establishing air bases for the air service and the air force that developed from it. A significant part of the transport and battle planes purchased by the procurement emissaries in the USA, and mainly in Central and Western Europe, arrived in Israel at a critical time – in the first weeks of the military conflict with the organized Arab armies and air forces. This situation required expedited action to establish and prepare bases that could receive and store these aircraft and serve their ongoing operations. Solel Boneh was called by the air service to conduct this work and prepared and built four central air bases, including all their buildings, facilities and runways, and even performed work related to fortifying the bases and camouflaging the planes. Three of the four bases that Solel Boneh prepared – the Ekron base, the Herzliyya base and the Ramat David base –

served as the main bases for air force operations and logistics (logistics mainly at the Ekron base) in the war.

In addition to setting up the air bases, in the first months of the war Solel Boneh prepared a large number of emergency routes and landing pads in settlements in the Negev and the north of the country. These landing pads served the air service and the army units charged with defending the settlements, mainly for missions such as observations and warnings of enemy forces, supervision of water lines, accompanying convoys that transported supplies and reinforcements, ensuring connection with settlements that were cut off, and rescue and transport of wounded. The company even prepared an emergency landing pad in Jerusalem, which served for landing light airplanes from the air service that transported food, mail and medicines to residents of the besieged city, and mainly military supply for the Haganah forces in the city. This landing pad served in fact as a complementary transport route to the Burma Road, on which most of the military supplies to Jerusalem were transported.

The third aspect of the operation to strengthen the military in which Solel Boneh mobilized to assist, and probably the most important of all the areas in which it was involved in the War of Independence, was the assistance extended to the Haganah and the IDF in the war procurement operations, which were primarily conducted in two arenas abroad - North America and mainly in Central and Western Europe. Solel Boneh provided its connections and means along with its independent infrastructure in the Haifa port and assisted the procurement activists in smuggling combat procurement loads from overseas, mainly by receiving and releasing loads securely from the port, even hiding them and preparing the weapons for action. Solel Boneh even provided services of some of its senior staff to organize activities overseas, which concentrated on procurement and collection of warehouse and camp equipment, and other necessary auxiliary equipment for the soldiers of the Haganah and the IDF. It also provided assistance in different ways to procurement activities initiated by the Haganah within Haifa port, which concentrated on the stockpiles of weapons the British held in the port.

It is difficult to assess quantitatively the assistance that Solel Boneh extended to the procurement activities related to the War of Independence, especially the "heavy" combat procurement, which included (in addition to planes brought in by air) weaponry such as heavy machine guns, heavy mortars, cannons of various types, tanks and half-tracks and combat vessels, which were necessary for building and operating the IDF units in the war. The references related to the involvement of Solel Boneh in importing and receiving procurement loads, those in the sources and in the book, relate mainly to assistance provided in bringing in 'light' combat procurements, which included light weapons and ammunition, explosives, and

mainly machines for manufacturing light weapons and ammunition. However, the book assumes that the assistance extended by Solel Boneh for all combat procurement activities was greater than this. This assumption is based on the whole set of conditions and circumstances which prevailed in Haifa port – through which most of the combat procurement loads related to the war of independence passed – even before the declaration of the state and especially during the first month and a half following the declaration. These conditions included the key role filled by Solel Boneh in operating and managing the port and the operations infrastructure it established for these operations, which were mobilized as stated to assist in procurement and receipt of goods. In addition, important changes took place in July 1948, such as the completion of the evacuation of British forces from Haifa port, the transfer of the port to full sovereignty of the state of Israel, and the departure of UN supervisors who oversaw the unloading of cargoes from their port positions. With these changes, the limitations that still existed after the declaration on receiving procurement loads at the port were removed. This made it possible for Solel Boneh and the rest of the Jewish entities in the port to engage in procurement activity freely and on a much larger scale.

In their turn, the military procurement operations had a decisive impact on the processes of building and strengthening the IDF in the War of Independence, helping the IDF to offset the significant initial advantage held by the regular Arab armies in the ranks of formal forces and in the quantity and quality of combat weapons, and to achieve victory in the war against the Arab side.