Back Copies

A limited number of nearly all back numbers is available. The journal website at http://visiblelanguagejournal.com is searchable and lists all issues, past article PDFs, contents, and abstracts.

Copyright Information

UNIVERSITY OF
Cincinnati

Visible Language

Visible Language

Contents

אִיתמר דוד
בחיפושו אחר
סימנים
טיפוגרפיים
עברייים

Ismar David's
Quest for Original
Hebrew
Typographic
Signs

Shani Avni

Ismar David (1910–1996) was a prolific calligrapher, type designer, graphic designer, and illustrator who also engaged in architectural design and taught calligraphy. He studied applied arts in Berlin, emigrating to Jerusalem in 1932 and to New York in 1952. From the 1930s to the 1990s, he created a wealth of unique designs, most importantly the David Hebrew typeface family. It was the first comprehensive Hebrew typeface family, comprising nine styles that include a true Hebrew italic style and a monolinear style, equivalent to a Latin sans serif. David Hebrew provides an example of how a research-based design process can help negotiate the tension between old and new, leading to an innovative, well-informed design solution. David not only excelled in his groundbreaking approach to Hebrew type design for existing glyphs, but he went a step further, expanding the character set. Drawing from the richness of the Latin typographic tradition, David created original designs for new characters that did not emerge organically from the Hebrew script, such as several currency signs and the Hebrew equivalent of an ampersand. This article presents David's previously unpublished proposals for characters that he created from scratch, solutions that he crafted in the belief that Hebrew readers would benefit from their existence. Through a visual analysis and historical contextualization of these signs, this study retraces David's work process. It demonstrates how David enriched the Hebrew type system by adopting useful concepts from the Latin script, and how he was able to do so while remaining faithful to Hebrew typographic traditions.

Keywords:

Hebrew typography
Ismar David
Ligatures
Type family
Currency

Ismar David and the First
Hebrew Typeface Family

In 1932, Ismar David (1910–1996) emigrated to Jerusalem from Berlin. He was in his early twenties and had just finished studying applied arts at the Städtische Kunstgewerbe- und Handwerkerschule Berlin-Charlottenburg. In Jerusalem, he conceived the first comprehensive Hebrew type family, David Hebrew. Upon completion, the family consisted of nine styles, including a true Hebrew italic and a monolinear style, equivalent to a Latin sans serif. David's design process spread over two decades, during which he researched the historical origins of the Hebrew script and carried out experiments in search of innovative letterforms. Through this long endeavor, David created an accurate, well-balanced typographic solution that had never been seen in Hebrew before (Brandshaft 2005, 18, 65–69). The David Hebrew typeface design is revolutionary considering the limitations of the Hebrew script. Because the Hebrew language and script suffered centuries of stagnation from being confined to religious use, the only typographic attributes that developed were those necessary to present a particular range of texts. Therefore, Hebrew lacks the typographic tools that would have evolved from an ongoing secular use. Drawing on the richness of the Latin typographic tradition, David created original proposed designs for new characters which did not emerge organically from the Hebrew script, including several currency signs and the Hebrew equivalent of an ampersand.

After David completed the design of his typeface family in 1954, it was partially cast for machine composition by the Intertype Corporation. During that period, David relocated to New York to pursue his creative career. Meanwhile, in Israel, the David Hebrew typeface gained great popularity. The regular style was used most frequently in the ensuing decades and was adapted to then-new technologies: dry rub-down transfer, photocomposition, and eventually digital type. Over the years, the typeface's popularity declined and its innovative features never became conventional in Hebrew typography (Avni 2016). David's sketches for glyphs adopting the Latin typographic approach to ligatures are among the most innovative of his expansions of Hebrew typographic form, and his approach to these characters demonstrates his research-based design process and its capacity to negotiate the tension between historical and emergent forms. This article presents David's previously unpublished proposals for characters he created from scratch, solutions crafted due to his belief that Hebrew readers would benefit from their existence. Through a visual analysis and historical contextualization of these glyphs, this study retraces David's work process and places it in relationship to his cultural and socio-political context. It introduces David's experimental glyph designs for the ampersand and Israeli currency signs, situating these unrealized and previously unseen designs in relationship to the larger project of the David Hebrew type family.

The original ink drawing for the comprehensive David Hebrew typeface family by Ismar David (circa 1950s). It was the first Hebrew typeface family to include a regular style, an authentic italic style, and a monolinear style, each in three weights. (The archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 74, Folder 1009.)

Ligatures in the Hebrew Script

In paleography, ligatures are defined as letters that are combined into one unit when written in a single continuous stroke. These ligatures are seen mostly in manuscripts written in the Sephardic cursive style from the twelfth century on, and they are considered to be an attribute of this style (Beit-Arié 2017, 409–410). This definition also applies to a combination of letters that are merged together so much so that it is difficult to identify each letter's original structure (Gordin 2018). However, this term does not distinguish the specific recurring letter combinations that were formulated over time as with the Latin alphabet, for example the f-i ligature in the Latin script. Due to the constrained development of the Hebrew script, formulated ligatures are much rarer than the ones that developed in the Latin script.

One ligature that does appear frequently in Hebrew manuscripts in all three writing styles: the (Square) formal, the cursive and the semi-cursive, is the "Alef-Lamed" ligature. The reasons for the development and appearance of the ligated letters Alef and Lamed are not conclusive; so far, credible literature on the subject is extremely limited. The Hebrew word spelled with Alef and Lamed and pronounced "El" has a number of meanings: "to," "toward," "unto," and also "a god," as well as the "sacred name of the Jewish God." This word appears frequently and is often seen integrated into a single letterform in various shapes. There is no immediate connection between the meaning of the word and its visual representation; one hypothesis for the development of this ligature concerns the Arabic language. It suggests that the ligature originated in texts in the Arabic language that were written with the Hebrew script. The Arabic word pronounced "Al" is spelled in Hebrew with the letters Alef and Lamed. It is the definite article in the Arabic language, equivalent to "the" in English. Therefore, it appears frequently in manuscripts and might have developed intuitively from repeated writing (Gordin and Leiter 2018).

The Hebrew Ampersand

FIGURE 2.

Right: two "Alef-Lamed" ligatures with different structures. Top left: the letters Alef and Lamed in their separate forms. (Written by Abraham Ben Amram Ha-Cohen, Cairo, Egypt, 1198. MS234, fil. 15v., courtesy of the Library of the Alliance israélite universelle, Paris).
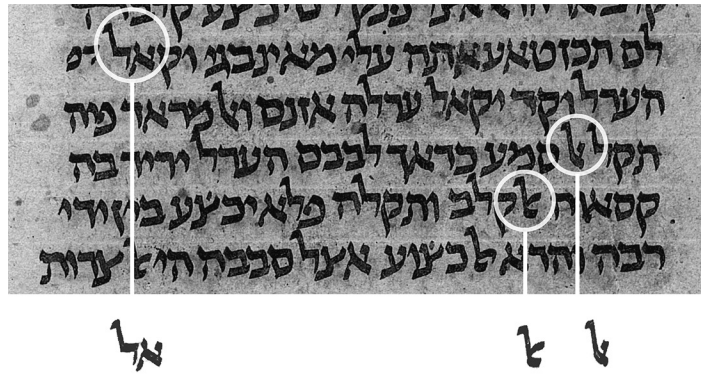
Over the years, the "Alef-Lamed" ligature became well established in manuscripts. With the invention of printing, it made its way to movable type and reappeared in early Hebrew religious printed texts. The "Alef-Lamed" ligature not only saved space on the page but also sped up the printing process by allowing the typesetter to use one metal letter instead of two. These Hebrew examples are similar to some Latin instances of the use of ampersands written in Carolingian minuscule, where several words are spelled using the ligature within them: *deb&* (debet), *&iam* (etiam), *ess&* (esset), and *dissider&* (dissideret) (Tschichold 2017, 7). Although the "Alef-Lamed" ligature appeared in type, it did not become a widespread convention in Hebrew typesetting and does not appear in contemporary (twentieth and twenty-first century) publications. However, in recent years it has appeared in the character sets of Hebrew typefaces designed by Israeli designers. Type designer Ben Nathan (b. 1984) added the "Alef-Lamed" ligature to his Days & Nights typeface to suggest to users that it is suitable for setting religious texts. So far, despite the typeface's popularity, Nathan reports that he has never observed its ligature in use (Nathan 2018).

FIGURE 3A.

Right: the word "Israel" printed in full. Left: the word "Israel" printed with the "Alef-Lamed" ligature. This fragment is taken from the Thesaurus Typographiae Hebraicae Saeculi XV – an extensive collection of Hebrew incunabula. This item belonged to David's private library and hints at the historical references he used in his design process. (Fragment. Lusitania. Ordo precum rit. Hispan. Census P. 179, C. 15c. B 44 2. Freimann, Aron and Marx, Moses. Thesaurus Typographiae Hebraicae Saeculi XV. Berlin-Wilmersdorf: Universitas-Booksellers, 1924–1931).
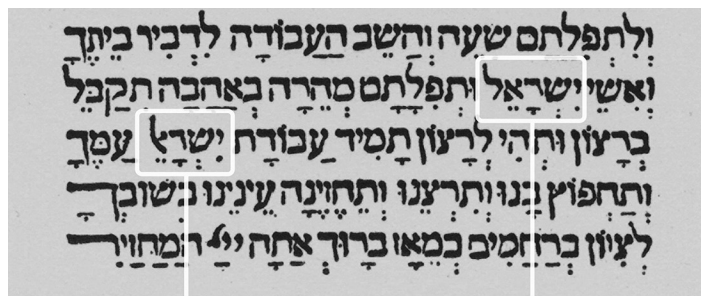
FIGURE 3B.

From right to left: the Hebrew letter Alef, the Hebrew letter Lamed, and the ligature from Ben Nathan's Days & Nights typeface (Hafontia, 2013). The fact that the ligature is not used today did not prevent Nathan from designing it as an addition to the character set for potential use.
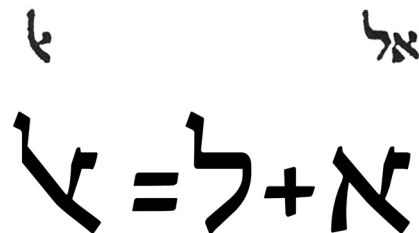
Faced with the task of developing a comprehensive Hebrew type family, Ismar David sought to expand the Hebrew character set with useful characters common to contemporaneous Latin alphabet typefaces. David's family was religiously observant during his childhood and spoke Ashkenazi Hebrew. By the time David arrived in Jerusalem, he was familiar with the Hebrew language and script, specifically with Hebrew religious texts. He quite likely knew of the Alef-Lamed ligature and its singular nature. His knowledge of the Latin script had led him to an understanding of how ligatures were created and implemented throughout history. David's drawings suggest that he applied the logic of the Latin script to the Hebrew script in order to create new ligatures that had not evolved naturally in the Hebrew script. One such character is the ampersand, which provides a succinct introduction to David's research and design process for the development of new Hebrew ligatures.

From the 1930s to the 1950s, while David lived in Jerusalem and designed the David Hebrew typeface family, it was a common naming practice for local companies owned by two partners to use their surnames with "et" between them. It seems likely that Jewish German immigrants introduced this naming convention to Hebrew companies in Jerusalem. The ampersand appeared in printed German matter instead of the German word "und" when companies used two surnames (Tschichold 2017, 9). In the Hebrew language, there is no word that means "and" in the way that the word "et" is used in Latin. The way to connect words in Hebrew is by adding the letter Vav to the second conjunct. As such, it does not serve the same purpose as the Latin "et." Considering the fact that David was familiar with the usage of the ampersand in Latin, English, and German, it is not surprising that he suggested a design for a character representing the transliterated word "et" constructed from Hebrew letters. Since there is no Hebrew parallel, the word "et" is used in the form of transliteration. "Et" in Hebrew is written with the letters Alef and Taf.

FIGURE 4.

From right to left: the Hebrew letter Alef, the Hebrew letter Taf, and the sign resulting from their combination. David designed this as part of the David Hebrew italic character set (Digitization by Helen Brandshaft).

David's proposal for a Hebrew equivalent of the Latin ampersand demonstrates a comprehension of the structure of this ligature and the way it developed in the Latin script. Although the drawings of the "et" signs are undated, the fact that they are all drawn on the same tracing paper, alongside the David Hebrew italic characters, suggests that they are related to the David Hebrew typeface. An examination of the stroke behavior and the proportions of the ligature also shows compatibility, further indicating its connection to the typeface. It seems that David intended for this

ligature to be a member of the David Hebrew italic character set. The reason the character was restricted to the italic style and lacks an upright version remains unknown. David did not document his design process for the Hebrew ampersand in writing. But his pencil drawings show that he referred to several Latin ampersands and to other Latin ligatures. These sketches suggest that the ampersand and the "fi" ligature were on his mind when he was creating the Hebrew parallels. Traces of his search for an authentic Hebrew equivalent to the Latin ampersand surface in seven variations of the glyph drawn side by side.

recognition of the combined letters and did not appear in David's other sketches, it seems to consolidate them and present them as a coherent sign. The movement of the swash appears to pull in the opposite direction of the Hebrew writing, somewhat reminiscent of the bottom part of the Latin ampersand; but it is not alien to the Hebrew form. In 2012, Monotype released the David Hadash typeface through an exclusive license with Ismar David's estate. The face is also sold through Linotype and Nonpareil Type. Helen Brandshaft, David's assistant, restored and redrew the typeface family with great acuity and accuracy. Although David's Hebrew ampersand is included in the David Hadash italic style (called David Hadash script), it is not being used in current practice, though current logos and business signs around Israel reveal that the word "et" is still being used. Additionally, one can find many examples of the Latin ampersand used between two Hebrew names. This suggests that David recognized the potential use of this kind of typographic symbol and its benefit to Hebrew readers.

FIGURE 5A.

Undated pencil drawings showing several interpretations for the Hebrew "Et" ligature. Right image: various combinations of the letters Alef and Taf. The drawing on the top left most resembles the ampersand but does not read as Hebrew letters. In the other options, the Alef is dominant and the Taf is harder to recognize. Left image: David's scribbles of Latin ligatures and ampersands. (Right: courtesy of Helen Brandshaft. Left: The archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 32, Folder 557).
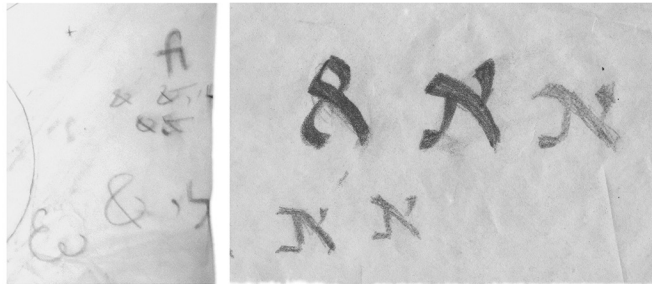
FIGURE 5B.

Pencil drawing of the Hebrew "Et" ligature. The added swash emphasizes the connection between the letter and echoes the bottom part of the Latin ampersand. (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 32, Folder 557).

FIGURE 6A.

Contemporary examples of the use of the transliterated Latin word "Et" in shops and office signs. (Photos by the author. Israel, 2017).

FIGURE 6B.

Contemporary examples of the use of the Latin ampersand between Hebrew words in shops and office signs. (Photos by the author. Israel, 2017).

Israeli Currency: Values, Names, and Signs

Like his experiments with the ampersand, David's sketches for currency signs reveal his approach to relocating Hebrew script into a contemporary secular context. An overview of twentieth century Israeli currency reveals the complexity inherent to David's search for a Hebrew currency sign. After Israel was declared a state in 1948, it suffered political turmoil that gravely impacted its economic reality. It took several decades for the currency to stabilize. During this period, it had various values, names, and visual representations. The volatility of the situation prevented the development of a definitive currency sign. A Hebrew currency sign and the convention

In David's sketches, the combination of the Alef and the Taf is evident. They share a stroke that functions both as the diagonal stroke of the Alef and the more perpendicular top stroke of the Taf. This treatment conceptually correlates with early roman cursive ampersands, where the middle stroke of the E forms the top stroke of the T (Tschichold 2017, 5, 11). Although the swash-like extension at the bottom is not essential for the

of using it could not have developed the way Latin currency signs did – for example the American Dollar sign ($) that has appeared in government documents since the eighteenth century (Cajori 1993, 402–405) or the British Pound sign (£) that has been used since the eighteenth century (Nicholas 2000, 1–2). The State of Israel inherited its currency system from the British Mandate, which governed from 1923 until 1948. After World War I, the currency used in the area was the Egyptian Pound. It was replaced in 1927 by the Palestinian Pound, called in Hebrew the Israeli Lira (Lira Eretz Israelit) and equivalent to the Pound sterling (Nathan, Gass, and Creamer 1946, 298–300). Subsequent to the end of the Mandate, the British government announced the departure of the Israeli Lira from the so-called sterling area: the group of countries, mostly members of the British Empire and Commonwealth, that either pegged their currencies to the Pound sterling or used the Pound as their own currency (Dabbah 2004, 45–60).

With the establishment of the State of Israel in 1948, the need for local currency arose. The temporary government grasped the urgency of the matter but also recognized that they lacked the knowledge and facilities required to produce the new currency locally. Therefore, they appointed the Anglo-Palestine Bank as the body responsible for issuing the first series of banknotes and coins for the new state. The Anglo-Palestine Bank in turn commissioned the American Banknote Company in New York to design and produce the notes. To shorten the process, a decision was made to base the design on various combinations of generic guilloches that were in the possession of the company's printer. At the time the banknotes were ordered, neither the name of the new state nor its currency had yet been determined. Consequently, "Palestine Pound" was printed on the notes. Three years later, all of the assets and liabilities of the Anglo-Palestine Bank were transferred

to Bank Leumi Le-Israel. Therefore, it was necessary to issue a new series of banknotes. Apart from the bank's name and a change of color, the design remained similar to that of its predecessor due largely to time and budget constraints (Bank of Israel 1990, 8–13). However, the young government acknowledged the local public's desire to apply an Israeli visual identity to the currency, both in name and appearance, and was committed to making design revisions in the future (Levy 2010).

Ismar David played an active role in the design of fractional currency in Israel's early days. He had already established himself as a graphic designer in Jerusalem and had received previous commissions from the Israeli government. At the time, there was a shortage of coins; the fractional currency was printed on paper in a size smaller than the Lira banknote. David designed the notes in denominations of fifty and one hundred Pruta (the equivalent of an American Penny). At the time, David was working on the David Hebrew typeface; he used commissions as an opportunity to test the typeface by incorporating it into his commercial work. In this Pruta note, David drew an early version of the characters that would eventually develop into the regular style of the David Hebrew typeface.

FIGURE 8.

The fifty-Pruta banknote, issued in 1952. David based the calligraphic pattern on the shape of the Jewish Menorah symbol. He tested the concept for the David Hebrew typeface by using early versions of it in his commercial work. (Courtesy of Helen Brandshaft. All copyrights are retained by the Bank of Israel).

In 1954, the Bank of Israel was declared the central monetary authority and was tasked with issuing the local currency. One year later, a third series of Israeli Lira banknotes was issued. The notes were designed and printed at the Thomas De La Rue Company of London and portrayed various landscapes of Israel. Considered too picturesque, the new design did not meet the public's expectations. Therefore, a decision was made to appoint a public committee to determine the attributes of a new design (Bank of Israel 1990, 16–18). In 1959, a fourth series of banknotes was issued following the committee's resolution to include motifs reflecting the atmosphere of the young state. The notes depicted anonymous workers representing aspects of the Zionist vision: agriculture, industry, and science (Mishori 2000, 66–67). Although the notes were designed by local artists and departed significantly from the previous efforts, the currency's name remained the same and was written out in full: "Israeli Lira." Since the Israeli Lira was no longer pegged to the sterling, it depreciated sharply. Following the continuous devaluation, in 1960 the value of a thousand Pennies was

FIGURE 7.

Top: the first issue of the Israeli Lira banknote, Anglo-Palestine Bank, 1948. Due to lack of time and resources, the note's design was based on preexisting materials owned by the printer. Bottom: the second issue of the Israeli Lira banknote, Bank Leumi Le-Israel, 1952. (All copyrights are retained by the Bank of Israel).

reduced to a hundred Pennies. In addition, there was growing interest in changing the name of the currency to a Hebrew name, and the government decided on the Biblical name "Shekel" in 1969. The name was only put to use in 1980, when the Shekel was declared the new currency of the State of Israel, and its value set at ten Lire (Giladi 1998, 7–14).

FIGURE 9A.

The third Israeli Lira banknote issued in 1955: a view of Upper Galilee. This new design was supposed to provide a more authentic representation of the young state of Israel. However, it still did not meet the public's expectations. Although the design was changed in order to better reflect the reality of that time, the currency kept its former name. (All copyrights are retained by the Bank of Israel).

FIGURE 9B.

The fourth Israeli Lira banknote issued in 1959 featured a fisherman carrying his gear. The design concept changed dramatically to convey the Zionist vision. The Latin-based name "Lira" was preserved, however. Design by Maxim Shamir, Gabriel Shamir, and Jakob Zim. (All copyrights are retained by the Bank of Israel).

From the establishment of the State of Israel in 1948 until the announcement of the new Hebrew name in 1980, there was no official sign for the Israeli currency. During that lengthy period, the currency units "Lira Israelit" were either written out in full in Hebrew or were designated by their acronym with the initials Lamed and Yud, with the Hebrew Gershayim mark (two apostrophes) between them. Ismar David's checkbook from Israel in the 1950s, preserved in the personal archive of Helen Brandshaft, serves as an example of a financial document marked with the Lamed and Yud acronym and not with a currency sign. During the two decades that David made his livelihood as a designer in Jerusalem, he was paid for his work in Israeli Lire, and he would have encountered many such trade-related Hebrew documents during that period. David's own user experience, then, informed his sketches for Hebrew currency signs as he developed the David Hebrew type family, as did the rapid and volatile evolution of the currency itself. His sketches reveal various design approaches that followed different directions in what seems to have been a continual search for a completely new sign.

FIGURE 10A.

From right to left: the Hebrew letter Lamed, the Hebrew letter Yud, and the acronym used to mark the currency in the Frank Ruhl Libre typeface, digitized by Yanek Iontef (Google fonts 2016).

FIGURE 10B.

Ismar David's checkbook from Israel in the 1950s serves as an example of a financial document marked with the Lamed and Yud acronym and not with a currency sign. (Courtesy of Helen Brandshaft).

The Israeli Lira Sign

In addition to the Hebrew "et" sign discussed before, David explored currency signs extensively, using the idea of the ligature as his model for their construction. He drew a version of an Israeli Lira sign as a part of the David Hebrew italic style, the same style which contained his proposal for the ampersand. In this Lira drawing, David created a visual relationship between the initials in a way that corresponded to his Hebrew ampersand design. The Lamed and the Yud are shown in their full form and are easy to identify. The right curve of the Lamed is rounder than it is in the typeface and allows for a bigger counter. This dynamic curve increases the flow of the stroke that continues upward and toward its own instroke. Its apparent correspondence with the Latin ampersand creates the solid structure of a recognizable sign. The Yud is treated similarly; its stroke creates a curve instead of the more perpendicular structure of the Yud in the typeface. Like the ampersand, this currency sign was kept in the drawer and never produced.

From a set of untitled and undated pencil drawings, we can infer that the search for an Israeli currency sign was concurrent with Ismar David's ongoing design work on the David Hebrew typeface family. He explored the form in relationship to several of the type family's styles. In one of his pencil drawings, another sign appears depicting the Hebrew initials Lamed and Yud, connected with a line. Its position next to the Latin "£" and "$" signs suggests that this is a drawing for the Israeli Lira. All signs seem to be members of the David Hebrew regular character set given their stroke angle, width, and proportions.

When comparing the new Hebrew sign to its two components from the typeface (the Lamed and Yud), the transformation of the characters demonstrates how David united the two into one. The letters are significantly narrower than those of the typeface. This could have been done to achieve an appropriate total width for a single character. With metal printing in mind, this functions as a ligature that could significantly speed

FIGURE 11A.

The pencil drawings of the David Hebrew italic style "Et" ligature and the Lamed Yud currency sign. The bottom swash-like curve creates a connection between the letters and integrates them into one sign. It also corresponds to the ampersand sign discussed previously and associates both as members of the same typeface. (The archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 32, Folder 557).
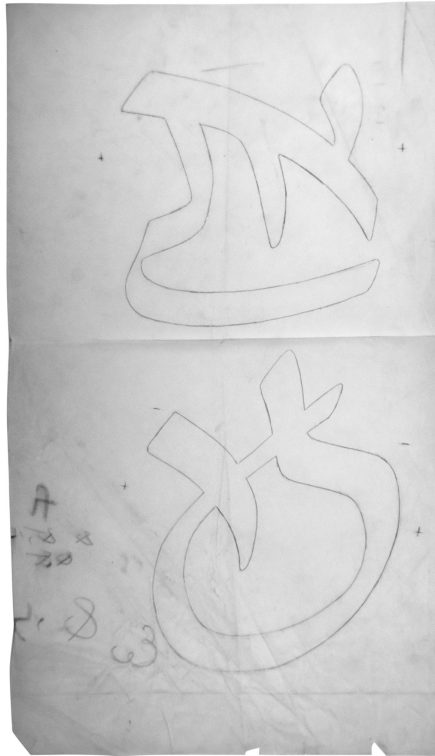
FIGURE 11B.

From right to left: the letter Lamed and the letter Yud in the David Hadash typeface and the resulting sign. David designed this as part of the David Hebrew italic character set. In the sign, the right curve of the Lamed is rounder than it is in the typeface. This creates a bigger counter and increases the flow of the stroke. The Yud in the sign is adapted to the new shape and is more rounded than in the typeface. (Digitization by Helen Brandshaft).
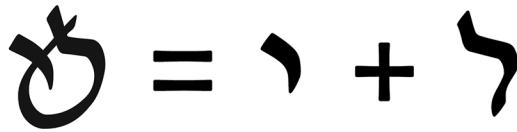
FIGURE 12.

The pencil drawings of the David Hebrew regular style currency sign, next to the "$" and "£". In this version, David offers a minimalist approach and connects the Lamed and Yud. (Courtesy of Helen Brandshaft).
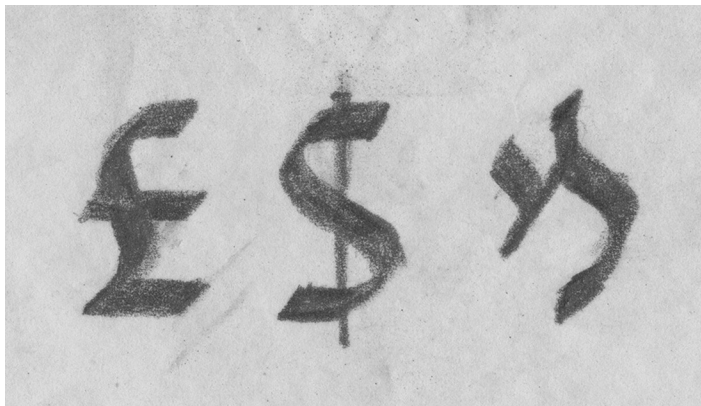
FIGURE 13.

A comparison between the pencil drawings of the currency sign and characters from the David Hebrew typeface: Lamed, Yud, "£" and "$". Top and bottom right: the Lamed and the Yud that make up the sign are narrower than those of the typeface and more upright. The top instroke of the Lamed leans slightly backward, perhaps to correspond better with the instrokes of the £ and $. Bottom left: the thin short stroke somewhat resembles the $'s vertical stroke. Top left: the David Hebrew regular typeface. (Courtesy of Helen Brandshaft).

the type setting process, by setting one metal letter instead of three. The letters are also more upright and the top instroke of the Lamed leans slightly backward, creating a stronger correlation to the overall width and shape of the £ and $ signs. Finally, the thin diagonal line that connects the letters is an extension of the stroke of the Yud upward into the Lamed. It joins the two letters into one sign with no significant manipulation of their original structure, in a minimal and effortless way. The thinness of this line relates to the vertical line of the $ sign and adds to the harmony between members of one typeface family.
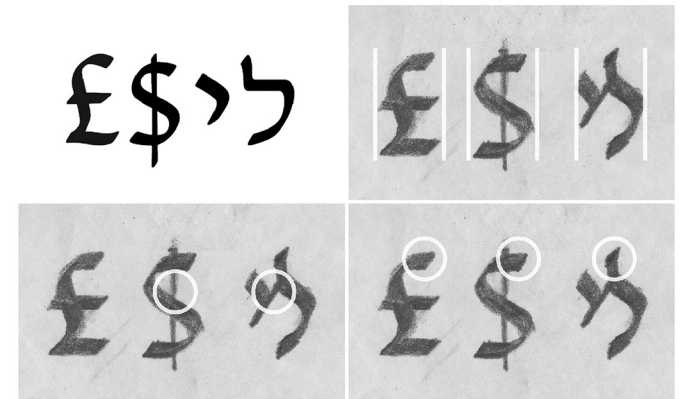
David's archives hold myriad examples of Hebrew lettering, a significant portion of which are complete sets of alphabets and not all of which are related to the David Hebrew family. So far, there is no accurate information as to when or for what purpose David drew these, since the majority are undated and untitled. In interviews with the author Helen Brandshaft, who worked closely with David for many years, shared that he used to draw relatively complete character sets that included punctuation, numerals, and currency signs even when it was not necessary for an immediate project (Brandshaft 2018). One of these sets, the Knopf Alphabet, presents a new Lira sign of a different nature. The currency sign depicts the Lamed and Yud initials connected with a looped line. This loop possibly originated from following the movement of the hand while drawing the letters in a fast, informal manner, without lifting the writing tool from the writing surface. This sign corresponds with the nature of ligatures that develop from the practice of fast writing. In this treatment, the letter Yud merges into the letter Lamed and loses its structure, making it harder to recognize the component parts. However, this sign is designed to be used in a specific context, therefore functioning well as a visual representation of the currency's name. The adaptation of the loop into the letterforms follows the construction of the character set, which is based on the formal square writing style and not on the script writing style. The sophisticated treatment keeps the sign strongly connected to its fellow character-set members, while introducing a new feature that is easily recognizable to Hebrew readers. So far, the only example of this letter set in use exists in a keepsake David designed in 1965 for the American publisher Alfred Knopf (1892–1984). In this keepsake,

David matched the Hebrew letterforms with his roman typeface David Classic, which was produced for photo-composition with Photo-Lettering Inc. If David drew the whole set for the purpose of this keepsake, then there was no immediate need for the currency signs. Rather, David once again used a commission as an opportunity to explore new typographic forms.

An additional set of sketches and Photostats from David's archive contains yet another sign that echoes the initials Lamed and Yud. As with the various available sketches of complete sets of alphabets, this sign is, once again, positioned next to a "$" sign, numerals, and punctuation. This particular set of letterforms shows a unique calligraphic interpretation of the Hebrew letter. The letterforms are constructed out of three separate strokes, with a focus on the areas in which they join. Helen Brandshaft points out that the nature of this alphabet is to show the corner joint between two strokes (Brandshaft 2018). The Lamed presents a less typical appearance than in other, more traditional treatments and when adapted to the currency sign, retains its unique construction. Here, the Yud seems to merge with the top vertical stroke of the Lamed, becoming one with it. This forms an original sign that is consistent with the appearance of its fellow members of the set but carries a less obvious association with the Hebrew initials. This set of letters is undated and its purpose remains unknown. And yet, these drawing show David's understanding of the essence and functionality of letter shapes – not existing in isolation, but always part of a greater whole. His diligence and meticulousness drove him to complete full sets of characters, even though, as far as anyone knows, they were not commissioned for a specific purpose.

FIGURE 14A.

A comparison between the ink drawings of the currency sign and the letters Lamed and Yud. (Arranged by the author. From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 78, Folder 1042).
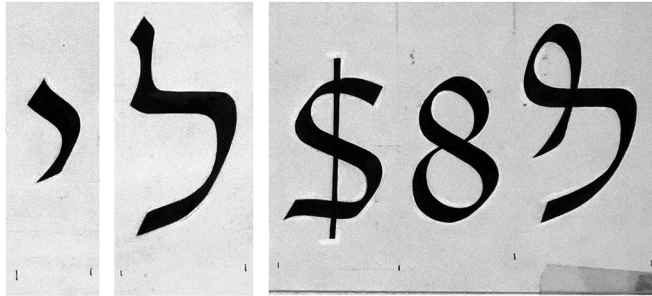
FIGURE 14B.

The letters Lamed and Yud and their ductus in the informal cursive hand. On the right: individuals letters. On the left: one connected stroke creates a loop. (Image by the author).
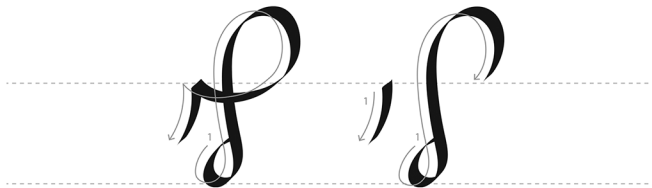
FIGURE 14C.

The ink drawings of the Israeli Lira sign as a part of the alphabet set, on the second line, next to the numeral 8. (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 78, Folder 1042).

FIGURE 15A.

A comparison between the ink drawings of the currency sign and the Lamed and Yud letters in David's calligraphic alphabet. The construction of the Lamed is fairly unexpected and the Yud vanishes into its top vertical strokes. This creates a unique sign that correlates with the rest of the alphabet set but is challenging to recognize. (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 78, Folder 1043).

FIGURE 15B.

The ink drawing of David's calligraphic alphabet set with the Israeli Lira sign at the bottom line, between the "$" and the "?". (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. n.d. Box 78, Folder 1043).

Avni

Ismar David's Quest for Original Hebrew Typographic Signs
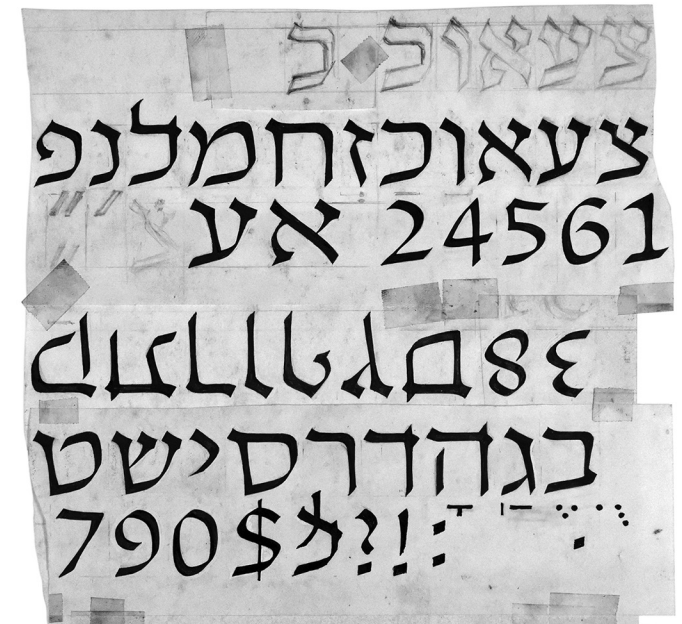
The First Official Shekel Sign: a Mysterious Beginning

Following the change of the currency name from Israeli Lira to Shekel and its revaluation in 1980, the government issued an official currency sign, rendering David's earlier experiments obsolete. For the first time in its convoluted journey, the currency was no longer written as a full word or acronym, but represented with a sign that was printed on every check. The government regarded the currency change as an emergency regulation to fight inflation and, as such, decided to keep it a secret. The public was not informed of the upcoming change. The "operation," as it was called, was to be conducted as quickly as possible. Because the government lacked the time needed to redesign the banknotes and believed that a new design would cause confusion among the public, the banknotes were left as they were; only the name and values were updated. Additionally, the banks' regulator was tasked with procuring a sign that would appear on every check denominated with the new currency (The Law Book 1980).

Because access to the Bank of Israel's archive is restricted, the circumstances in which the sign was created are opaque. It can be inferred that what led to the appearance of the new sign was the desire to generate a bold visual distinction between the former Israeli Lira and the Shekel, and the need to produce a new currency in a very short amount of time. These factors possibly led to the sign's less than user-friendly features: its shape vaguely resembled the letter Shin (the first letter of the word "Shekel"), it appeared dark and heavy on checks, and it seemed alien to the type set next to it. Moreover, when replicated by hand with a pen, the strokes lose their modulation and the outcome is a generic skeletal shape of the letter Shin. This could be one of the reasons it was not used in handwritten documents. Despite the existence of the sign, printed mostly on checks, the currency was more commonly denoted by the initial Shin or the full word "Shekel," like its predecessor the Lira. An example of this practice is the "Atooda Shekel" series of postage stamps designed for the Israel Philatelic Federation by Gideon Sagi in 1980, which uses the initial Shin rather than the Shekel sign. Moreover, this version of the Shekel sign had a short life span, just five years. During that time, Israel was experiencing yet another economic crisis. The Shekel suffered from hyperinflation; in short order, it was replaced once again by a new currency with a new typographic indicator, the Shekel Hadash, or new Shekel.

David's Shekel Signs

In the early 1980s, David adapted the David Hebrew regular style to be produced for the IBM Selectric Typewriter. In the process of adjusting the characters for this means of production, David added a new currency sign to the character set. Like the Shekel signs on checks and postage stamps, David's Shekel sign was based on the letter Shin. For this character, David took a new approach. As opposed to the older variants based on forms and structures within the alphabet or typeface, in this case, David experimented with incorporating different writing styles into a single character. Over time, three distinctive Hebrew writing styles have evolved: the formal book style called the square script, Ktiva Merubaat, used for writing traditional text; the formal Rabbinic semi-cursive style used mostly for religious commentaries, called Rashi; and the cursive style, used for everyday writing. Unlike the earlier calligraphic suggestion for the Israeli Lira sign, where the influence of the cursive style is ever so slightly manifested in the sign, the Selectric Typewriter Shekel sign follows the cursive style distinctly. Although it uses the same stroke width and angle, the sign stands out when set next to the rest of the characters of the David Hebrew regular style, which follow the formal square style. On top of the difference between the writing styles, the sign is also considerably wider than the rest of the typeface. An additional element is the vertical stroke that cuts through the Shin. This stroke, somewhat alien to the Hebrew alphabet, refers to that of the $ sign.

FIGURE 16A.

The Shekel currency sign on a check from the early 1980s. The sign is disproportionate to the letter size and appears in addition to the Hebrew initial Shin (Courtesy of Igal Zorea. All copyrights are retained by the Bank of Israel and Bank Leumi).
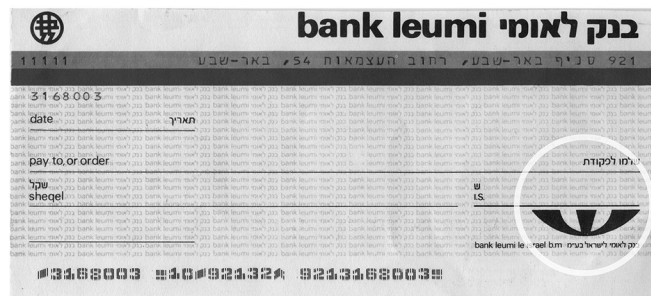

FIGURE 17A.

From right to left: the letter Shin and its ductus in the formal square style, the semi-cursive style, and the informal cursive style. (Image by the author).
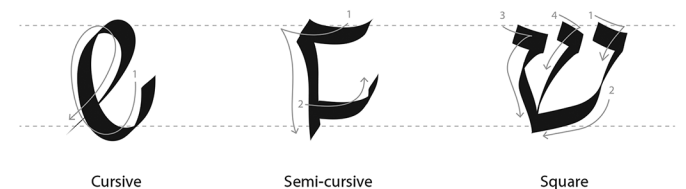

Cursive   Semi-cursive   Square

Ismar David's Quest for Original Hebrew Typographic Signs

The IBM blueprints of the "$" and the Shekel sign, ca. 1980. The Hebrew sign is constructed from the letter Shin in its cursive style and a vertical stroke that resembles that of the Dollar sign. (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. c, 1980. Box 32, Folder 556).
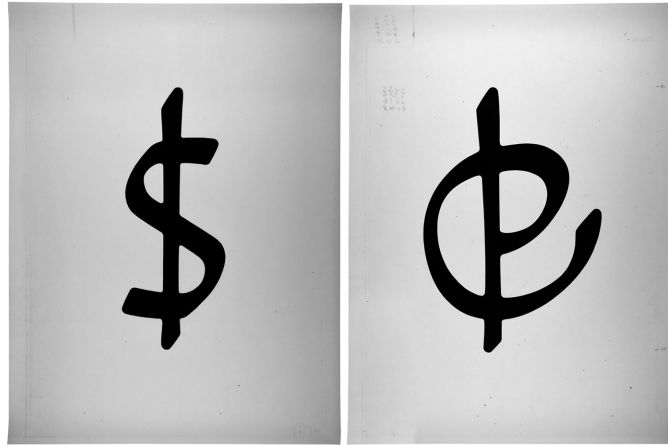
The test documents produced by IBM for David give us a sense of how he inspected the sign at small sizes. In these documents, the inconsistency of the sign relative to the other typeface members is clearly visible. David also tested the sign's position both to the right and left of the sum. In Hebrew, there is no fixed position for the sign when it appears with a numeral. Since the letters are written and typed from right to left, but the numerals' direction is left to right, both options can be found. By the end of 1983, David was approached by D. Stempel AG Schriftgießerei in Frankfurt am Main and thus ended his relationship with IBM. The typeface was never produced for the Selectric Typewriter; yet another currency sign never made it beyond the testing stage (The archive of Ismar David, 1983–1984).

Top: The test documents from IBM, ca. 1980. David tested the Hebrew currency sign at small sizes. The sign stands out when set within the typeface, possibly because it follows a cursive informal style, while the rest of the typeface follows the formal square style. Bottom: Testing the sign on both sides of the numeral. In Hebrew this sign can be seen used on either side of the sum. (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. 1983–1984. Box 3, Folder 67).
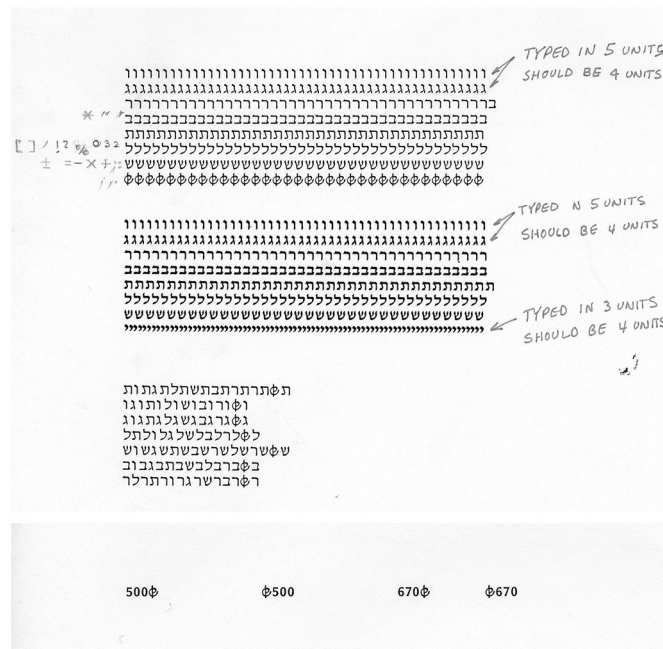

In 1984, David's business correspondence indicates that he began to prepare his typeface for use on CRTronic photocomposition systems, on a Mergenthaler Linotype phototypesetting machine, for D. Stempel. As David shifted to the new phototype technology, he left the sign he designed for the typewriter behind and created a new one for phototype. Veering away from the former cursive-inspired version for IBM, this sign was once again based on the David Hebrew typeface letterforms. In this new iteration, David managed to combine all three letters that spell the currency name: Shin, Kof, and Lamed. Upon close observation, all three letters can be detected, combined into one sign. It corresponds with the rest of the characters and functions as an integral part of the typeface. Another possible interpretation is that the sign combines the Hebrew letter Shin with the Latin letter S, the first letter of the transliterated word in English. The David Hebrew regular and bold weights of the upright style were published in 1984; however, they did not include the Shekel sign.

The drawing of the Shekel sign, next to the "$" and "?". Stempel, ca. 1984. (From the archive of Ismar David at the RIT Cary Graphic Arts Collection, New York. ca.1980. Box 32, Folder 556).
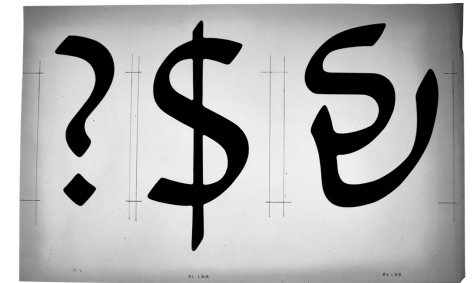
From right to left: the Hebrew letters Shin, Kof, and Lamed in the David Hadash typeface. All three letters combine into one sign. (Digitization by Helen Brandshaft. Image arranged by the author.).

The Shekel Hadash Sign and the David Hebrew Typeface

In 1985, yet another currency was declared in Israel: the Shekel Hadash, or new Shekel. It was a part of the government's Economic Stabilization Plan. The new Shekel replaced the previous one at a conversion rate of one thousand to one. By now, the Bank of Israel was aware of the need for a currency sign. This time, a design competition was led by Israel's Government Advertising Agency. Unfortunately, no documentary evidence has yet been discovered regarding the way the competition was conducted. The results of the competition, however, are evident. The ₪ was chosen, created by the Israeli designer Moshe Pereg (b. 1941), who lives and works in Tel Aviv. Pereg designed various stamps, coins, logos, and posters throughout his long career. He describes his process for creating the sign as making a ligature

out of two initials: the Shin and the Het. Pereg imagined a person writing a check with a pen, scribbling the sign after the numerals. He thought of the way the letter Shin connects to the letter Het when it is drawn by hand. He envisioned a simple mark, one that would look and feel intuitive (Pereg 2018). Although the ₪ is the official symbol (Unicode Character New Shekel Sign U+20AA since 1993), its use is not universal and the Shekel is still often represented by its Hebrew initials Shin and Het, with or without the Gershayim mark. Perhaps its relatively short existence has not been enough to cement it as a writing convention.

FIGURE 19.

A ten ride bus punch card from 2010. Despite the existence of the currency sign, the New Shekel values are represented by the initials Shin and Het with the Gershaim mark. On the right: an enlarged detail. On the left: the card, size 1.65x3.8 inch. (All copyrights are retained by Dan Public Transportation Ltd).

In 2012, when the David Hadash typeface was released, the need for this currency sign arose. It did not exist, as David had not produced any sketches of the form following the currency's introduction in 1985. To complete the typeface, Helen Brandshaft created the glyph. Her typographic skills and her understanding of David's work led her to design a sign that correlates accurately with the existing typeface. Prior to the release of the David Hadash typeface, the Israeli market was saturated with digital versions of the David Hebrew regular style. These versions were distorted and deformed, bearing little resemblance to the original outlines. Additionally, their character sets did not include the new Israeli Shekel sign that was now officially in use. Most pirated versions incorporated a generic sign from a different typeface. In the case of some, the currency sign is treated as an integral part of the character set. Rather than matching a generic sign that is foreign to the typeface, it is designed in accordance to the letterforms.

FIGURE 20A.

From right to left: the currency signs of the three styles of the David Hadash typeface: regular, italic, and monolinear, drawn in 2012 by Helen Brandshaft.

FIGURE 20B.

A deformed version of the David Hebrew Regular with a generic currency sign. (Fontbit, FbDavidNew).

FIGURE 20C.

Examples of recent typefaces and their currency signs. From top to bottom: Alef by Hagilda & Mushon Zer-Aviv 2013, Bellefair Hebrew by Liron Lavi Turkenich 2016, and Secular One by Michal Sahar 2016 (Google Fonts).

In 2016, the David Libre typeface joined the Google Fonts project. This version is based on the David Hadash typeface released by Monotype in 2012 and was adapted by Type designer Meir Sadan (b. 1982). When the glyphs made their way to Sadan, he noticed that the design of the currency sign presented a problem to native Hebrew readers. The right stroke of the letter Het joins the middle stroke of the letter Shin, creating a shape that reads like the letter Kof. That treatment forms a different Hebrew word ("sak" instead of "shach") and therefore hinders the recognition of the sign. Sadan altered the sign in a way that remained faithful to David's design and ensured that it could easily be identified (Sadan 2018).

FIGURE 21A.

From right to left: the currency sign in the David Hadash typeface, the middle stroke that creates a similar shape to the letter Kof, and the letter Kof.

FIGURE 21B.

From right to left: the Hebrew letters Shin, Het, and the sign created by Sadan for the David Libre typeface (2016).

Avni

Ismar David's Quest for Original Hebrew Typographic Signs

David's Legacy to Hebrew Currency Signs and Ligatures

The challenging circumstances under which the State of Israel was formed explain the longstanding lack of a currency sign. It took about four decades of arduous existence for state officials to acknowledge the need for such a sign and the benefits of using it. Yet the fact that it exists today does not necessarily mean it is being used. The practice of using the currency's initials is still fairly common. What started as an ad hoc solution in the days of the Israeli Lira, when a sign was not available, hardened into a convention over time.

limited, with significant corporate records either lost or destroyed. In any case, these creations never made it off of David's drawing board; his efforts and ingenuity have remained unseen until now. Revealing them provides a fascinating case study in how to fill a typographic void with an informed and experimental design process. Studying David's methods in their historical context can enlighten future type designers, inspiring them to engage in new endeavors that not only respond to the specific needs of the existing Hebrew typographic range, but also expand and enrich it.

From right to left: the sign created by Sadan for the David Libre typeface (2016) and the initials Shin and Het with the Gerashaim mark (two apostrophes) between them. The acronym is still widely used despite the existence of a formal sign.

נ ש״ח

In many ways, the story of the Israeli currency sign mirrors the story of Hebrew type and typography – a story of an abrupt development and a rushed evolution. David's ongoing search for this sign could be seen as an obsession perpetuated by a deep understanding of how useful it might be. His task was particularly challenging considering there was no visual continuity to the currency whatsoever. The rapid changes in names and designs that resulted from an unstable economy prevented the sort of natural evolution that is crucial for the formulation of such a typographic sign. The fact that David was well versed in the development of both the rapidly changing Hebrew and the more slowly evolving Latin approach to ligatures is manifested in his design process. He understood how Latin ligatures and signs were developed over long periods of time, their shapes influenced by the manner in which they were used. This understanding helped him apply the logic behind these slow, organic processes to the accelerated design procedure for the Hebrew. David's search for solutions for a nonexistent, then new and rapidly changing, typographic representation of the currency is a testimony to his ambitious and rigorous methodology. The diversity of his design approaches speaks of a relentless effort to make up for the typographic shortage from which Hebrew type suffers.

The creation of the formal currency sign was instituted by the authorities in Israel. In that sense, the chances of any self-initiated design solutions that came beforehand to be spread and adopted by the public are extremely slim. It is unknown if David ever suggested publishing his signs as official members of the character sets in the typefaces he designed. Access to the archives of the corporate entities that corresponded with David (the Intertype Corp., IBM, D. Stempel AG) for the production of his typeface is

All of David's signs discussed in this article. From right to left: the Hebrew ampersand, the David Hebrew italic Lira sign, the David Hebrew regular Lira sign, the Knopf alphabet sign, the calligraphic alphabet Lira sign, the selectric typewriter Shekel sign, the phototype Shekel sign, the Shekel Hadash designed by Helen Brandshaft, the Shekel Hadash adjusted by Meir Sadan (image arranged by the author).

Avni

Ismar David's Quest for Original Hebrew Typographic Signs
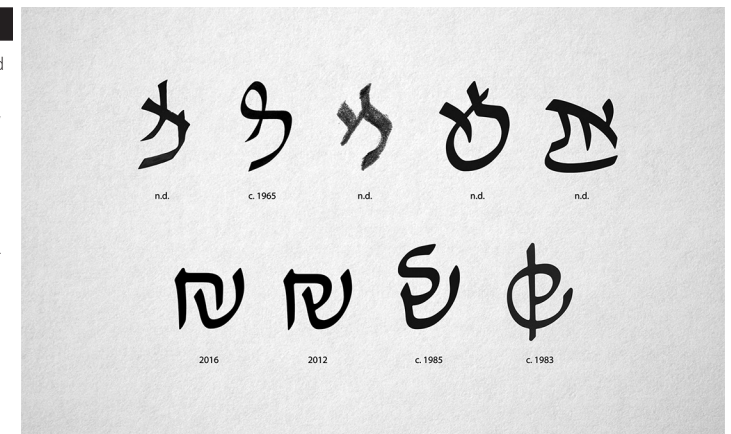
References

Avni, Shani. 2016. *David Hebrew: The First Multi-Style Hebrew Typeface Family*. MA Dissertation, University of Reading, UK.

Bank of Israel Currency Department. 1990. *Banknotes and Coins of Israel, Catalogue*. Jerusalem: Bank of Israel Currency Department. Hebrew.

Beit-Arié, Malachi and Lasman, Zofia, eds. 2017. *Hebrew Codicology, Historical and Comparative Typology of Medieval Hebrew Codices based on the Documentation of the Extant Dated Manuscripts until 1540 Using a Quantitative Approach.* Preprint internet version 0.7. December 2017. Hebrew. http://web.nli.org.il/sites/NLI/Hebrew/collections/manuscripts/hebrewcodicology/Documents/Hebrew-Codicology-continuously-updated-online-version.pdf

Brandshaft, Helen. 2005. *The Work of Ismar David*. Edited by David Pankow. New York: RIT Cary Graphic Arts Press.

Cajori, Florian. 1993. *A History of Mathematical Notations*. New York: Dover Publications.

Dabbah, Raphael. 2004. *Currency Notes of the Palestine Currency Board*. Jerusalem: Dvir. Hebrew.

Giladi, Dan. 1998. *The Israeli Economy: Development, Characteristics, Policy. Ministry of Education*. Israel: Publications Service, Information Center. Hebrew.

Ismar David archive at the RIT Cary Graphic Arts Collection, New York. David's correspondence with IBM November 18, 1983 and January 12, 1984. Box 3, folder 67.

Levy, Li Tal. 2010. "Israel's Financial Declaration of Independence 17.8.1948 Today 62 Years Ago." *Ha'aretz Newspaper*, Education and Society Section, 17.08.2010. Hebrew.

Mayhew, Nicholas. 2000. *Sterling: The History of a Currency*. London: Penguin Books.

Mishori, Alec. 2000. *Look and Behold, Zionist Icons and Visual Symbols in Israeli Culture*. Tel Aviv: Am Oved. Hebrew.

Nathan, Robert R., Gass, Oscar and Creamer, Daniel. 1946. *Palestine: Problem and Promise. An Economic Study*. Washington: Public Affairs Press of the American Council on Public Affairs.

The Law Book, 970, 23.5.1980, Government Printing, Jerusalem ISSN 0344-2832. Section 4B. Hebrew. http://www.dinimveod.co.il/hashavimcmsfiles/Pdf/sh970.pdf

Tschichold, Jan. 2017 [1953]. *A Brief History of the Ampersand*. Translated by Jean-Marie Clarke. Paris: Zeug.

Interviews

Brandshaft, Helen. Ismar David's assistant. Email correspondence with the author, January 27 and 29, 2018.

Gordin, Alexander. Reading Room supervisor of the Special Collections at the National Library. Librarian, expert in Hebrew manuscripts, researcher of chronology and astronomy of the Middle Ages. Interviewed by the author. Jerusalem, April 9, 2018.

Leiter, Tamar. The Hebrew Paleography Project, the Israel Academy of Sciences and Humanities. Interviewed by the author. Jerusalem, April 9, 2018.

Nathan, Ben. Type designer. Interviewed by the author. Tel Aviv, April 15, 2018.

Pereg, Moshe. Graphic designer. Interviewed by the author. Tel Aviv, February 7, 2018.

Sadan, Meir. Type designer. Interviewed by the author. Tel Aviv, February 11, 2018.

Author

Shani Avni is an independent designer and researcher. She holds a BA from Shenkar College of Design in Tel Aviv, IL, and an MA in Typeface Design from the University of Reading, UK. Fascinated with letters and the stories they tell, she collaborates with designers and educators in order to expose more practitioners to this subject through workshops and lectures. For her Typeface Design MA thesis at the University of Reading, she researched the David Hebrew typeface family and, since receiving her degree, continues to do so. Shani received the 2017 Cary Collection Research Fellowship at the Rochester Institute of Technology (RIT), USA, where David's work is archived. She perseveres in her efforts to make historical information available as both an academic and a practical reference.

Ismar David's Quest for Original Hebrew Typographic Signs