

# הספרייה TYPOGRAPHY

**November 2005** –  
PDF copy of my original December 1985 document

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have been scanned, retaining quality as close to the  
original document as practical.

It is now 20 years from when I researched, compiled  
and published the original work. During this time  
period, in addition to the ongoing development of my  
own understanding and appreciation of the subject,  
other aspects have also changed. For example, a  
heavier vertical (than horizontal) stroke in a Hebrew  
typeface does not look so unacceptable today, and  
such characteristics can be advantageous. Other  
issues also seem far more important now, deserving  
an expanded review.

A supplement to this original text will be released in  
the near future.

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# DESIGN CONSIDERATIONS AFFECTING THE SIMULTANEOUS USE OF LATIN & HEBREW TYPOGRAPHY



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A dissertation submitted in partial fulfilment of the requirements  
for the Degree of Master of Arts in the Department of  
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## FOREWORD

Bilingual texts form bridges of understanding between two languages. There can be no doubt that good typographic design helps legibility and comprehension. Well balanced layout is even more essential when entirely different letter forms have to be used for their respective texts. Each independent alphabet has its own conventions of use and reading directions; though the Hebrew and the Roman alphabets have developed originally from the same source, they both are now so different, that it represents a challenge to achieve a harmonious equilibrium for the parallel texts. Anybody who is able to define the problems and to suggest solutions is doing literacy an important service.

A handwritten signature in black ink that reads "Berthold Wolpe". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

Dr Berthold Wolpe OBE RDI  
7·11·85

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The typography and layout of this document has been designed within the limitations of the Macintosh MacWrite software and the type reproduction quality of the Apple LaserWriter.

The main text of this document has been set in 12/15pt Times.

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## ABSTRACT

### i. THE PROBLEM

The need for typography to combine more than one alphabet can be traced back to the beginning of printing. The first things to be printed were mainly religious books for which it was necessary to use the Hebrew, Latin and Greek alphabets side by side. As well as being printed together it was the same people who cut the Latin types that cut the Hebrew type. In 1539 Robert Estienne was given the title of 'Printer in Hebrew and Latin' by Frances 1st. of France. In later years when Garamond and LeBé worked for him LeBé cut a large number of Hebrew faces. Some of these Hebrew faces were used by Plantin. A 1734 typesheet of William Caslon also shows a large number of different alphabets including a selection of Hebrew faces. To this day as a result of to both tourism and import/export this need for bilingual design is growing. This includes, informative typography within a country to aid tourists, packaging for both within a country and export, informative texts to go with products and any company involved in import/export finds the need to use more than one language.

leges cae, Ifraelitis nempe peculiare, ad gentiles attinerent, superinductum est sapientum decretum quo nunquam hujusmodi immunditie seu ejus effectu, quantum ad Judaeos, carere gentiles constitutum est. Scribunt enim ז, הגוים אין חייבין עליהם, משום נדרה ולא משום זבה ולא משום יולדת \* והכמים גורו על כל הגוים הזכרים והנקבות שיהיו כזבים תמיד בין ראו בין לא ראו לענין טומאה וטהרה : *Leges sacrae de muliere menstruis aut sanguinis profluvio laborante, aut de puerpera, ad gentiles quidem non attinent* ; id est, ex ipsa lege sacra immundi ex causis illis non sunt. *Sed sapientes decreverunt omnimodos gentiles tam masculos quam foeminas pro eis qui perpetuo sanguinis profluvio laborant, sive ea de re constat sive minime, habendos, quoties de munditia & immunditia quaestio fit* ; id est, ex eorum contactu immunditiam contrahi. Eos enim qui sacra immunditiae lege non tenebantur ipsi eis qui ea tenebantur semper immundos haberi jam ex superinducto hoc atque interveniente jure vole-

*factum paulatim in disciplinam religionemque convertit.* Hinc illud Apollonii Molonis & Judaeos recipere noluisse ex aliis gentibus quempiam diversa de numine sentientem, μηδὲ κοινωνεῖν τοῖς κατ' ἐπίστασιν σωθήσειαν βίαις ζῆν προαιρημένους. *Nec consuetudine eorum uti qui aliam praeter Judaeam vitae rationem sequebantur.* Quod & verum fuisse palam asserit Josephus dum rem ipsam ex Graecorum aliquot de peregrinis more pluribus defendit. De commerciis autem & humanitatis officiis aliquot instituta habuere pro locorum diversitate alia atque alia, uti & proculdubio seculorum. Huc etiam spectat illud de Samaritanis, qui nunc se sanguine Judaeis junctos profitebantur, nunc ibant inficias ipsi, sed perpetuo Judaeis exosissimi. *Quomodo tu, Judaeus cum sis, bibere a me possis, quae sum mulier Samaritana?* ἢ ἡ συγγενεῖται Ἰσραῖλοι Σαμαρείταις, *non enim contuntur Judaei Samaritanis, seu non habent commercium,* ut Syrus. Verba sunt Samaritanae ad Jesum Christum aquam

*An example of type printed in 1726 combining Hebrew, Latin and Greek with Caslons Roman Type.*

NO ADMITTANCE

منوع الدخول

הכניסה אסורה

*A multilingual sign carved by Eric Gill in the 1930's*



*A multilingual logo designed for use in 1985*

This research document looks into the typographic problems of simultaneous use of the Hebrew and Latin alphabets. This, as with any other typography should be based on legibility and aesthetics, in varying proportions depending on the situation. When designing using both the Hebrew and Latin alphabets together the above points become problematic for the following reason. The two alphabets must be separated enough (in style or distance) not to confuse the reader but must still create the same feeling and hold together as a piece of work.

Typography is affected by technology. Phototypesetting equipment is important in the way typography has and is developing – especially Hebrew typography being used on Latin oriented equipment. Knowledge of the capabilities of typesetting equipment especially with reference to using the two alphabets is very important if one is to get full use of photosetting equipment and not specify impossibilities.

Once one understands the basic problems and the tools with which one has to work, the next question is what are we trying to do? Should one design in one alphabet and then design the second to compliment it or should they be designed simultaneously? Then, is it a matter of imitating Latin type conventions in Hebrew, vice versa, or a bit of each?

## INTRODUCTION

### i. AIM OF THE STUDY

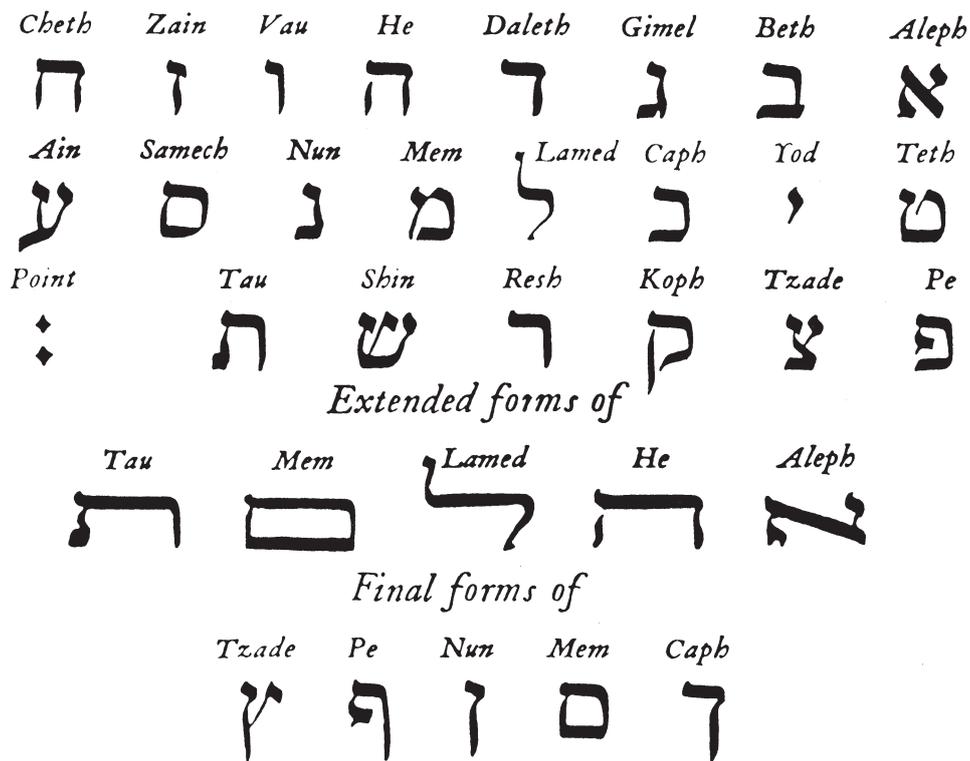
The aim of this study is to compile a design aid to help in design work which uses the Hebrew and Latin alphabets together. Rather than giving fixed design solutions to set problems it will range from the typography of a word to that of a book giving guidelines to work within and useful points to look out for. Due to the complexities of the problem it has been found necessary to include a section which deals with finding out exactly what the typographic requirements of one's job are.

From looking at the chapter subheadings it appears that some topics are looked at from only one side. This is due to the fact that the development of the Hebrew alphabet has been, and is influenced by Latin typography, whereas the reverse is not true. It is therefore necessary to look at some of the development aspects from the Hebrew point of view and others from the Latin. Likewise, it has been found necessary to approach the Hebrew alphabet as being a foreign element. This is not because this dissertation is aimed at someone with knowledge of the Latin alphabet and not the Hebrew. Someone that knows the Latin alphabet does not necessarily know the Hebrew alphabet but the majority of people that know the Hebrew alphabet also know the Latin alphabet. This document, if translated into Hebrew, should be just as useful as it is in English.

### ii. THE HEBREW ALPHABET

The Hebrew alphabet has 22 characters and five alternative characters for use when its equivalent character appears at the end of a word. These characters are known as 'final letters', and are indicated overleaf in the alphabet. Also shown are extended forms of some characters, these variations were used to justify lines of text (see chapter 3iii). There is no upper and lower-case alphabet in Hebrew but one set of characters, these can be compared to the Latin Uncial letters or, as described by Hugh Schonfield in 1932 as *floating between the Latin upper and lower case*. When comparing this single case of Hebrew characters with the Latin alphabets it should be assumed that Latin u/lc is being used unless otherwise indicated.

Vowels in Hebrew are not letters but graphic symbols that are placed above and below each character. In general the vowels are not used except in poetry, childrens books, religious texts and where ever the pronunciation of a word is not clear. The Hebrew language uses the same *Arabic* numerals as used in the European languages. They are read from left to right as in English and not in reverse as the Hebrew language is. This inconsistency in direction also occurs in the Arabic languages.



*The Hebrew alphabet, taken from the 1693 specimen of the Oxford University Press.*



*The Hebrew vowels.*

The first six are centered under the character concerned, and the seventh, a dot, is placed either above, below or in the middle of the character.

## DICTIONARY OF TERMS USED

**Base line...** The visual base of a line of type – not necessarily the bottom.

**Monoline/monolinear...** Characters of a uniform thickness of line.

**Latin alphabet/characters...** The characters used to write English and the other European languages - the term *Roman* does not include italic faces.

**Uncial alphabet...** An alphabet that has one case of characters which can be compared to a mixture of upper and lower case characters.

**Old style numerals...** Are non ranging and therefore compliment the lower case Latin alphabet.

**Hebrew with points/vowels...** Give full phonetic value to a character.

**Body height (Hebrew)...** The height of a Hebrew character, excluding any ascenders or descenders.

**Bustrophedic...** A form of writing when rather than starting each line from either the left *or* right one writes in alternate directions from line to line, like an ox ploughs a field. The direction of the characters also changes.

**Yiddish...** A language which is a mixture of Old German and Hebrew – generally written with Hebrew characters.

# 1. BACKGROUND

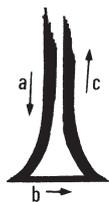
## i. DEVELOPMENT OF THE TWO ALPHABETS

A recognised theory is that both the Hebrew and Latin letterforms were derived from the same Phoenician characters dating back to 1100 BCE. In the early stages in the formation of the Latin letter, text was written as in Hebrew from right to left. It then went through a boustrophedonic stage followed by writing as we do to day from left to right (*See appendix A1*). This creating one of the more obvious differences in the alphabets – the reading and writing direction.

Traditionally Latin type is said to have developed based on the hand-chiseled letter of a constructed form where as Hebrew type is based directly on the alphabets that were hand written with a quill. From this we get the Latin *serif* and the Hebrew *pen mark*.



A second theory on the history of the Latin serif is that it is based as in the Hebrew, on the mark the pen makes at the start of a line.



## ii. RELEVANT POINTS IN THE HISTORY OF HEBREW TYPEFACE DESIGN

From the invention of printing, Hebrew type has developed based on the written letter rather than constructed letter forms. This was due to the fact that the majority of type-cutters were not Jewish and not knowing the Hebrew alphabet they had to base the Hebrew letters on Hebrew hand-written manuscripts. The first Hebrew types were cut in the late gothic style with a disproportionately heavier horizontal line than vertical (this stress being opposite to that in the Latin faces). This being due to the fact

that at the time, in the countries that the types were cut, the hand written Hebrew letter was influenced by the late gothic style. The Italian Renaissance then saw the rounding out of the letter forms and then the 18th century saw the imitating in Hebrew of the *Bodoni* style (an exaggerated contrast between the weight of the horizontal and vertical lines). This style in Hebrew lasted until the start of the twentieth century when the vast differences in the weights of the lines was slightly corrected.

Up to this point in time there had not been a need for any great change in the Hebrew alphabet from its so called *traditional*<sup>1</sup> form. This alphabet was basically used for printing religious texts. Then in the 1920's the need for an updated Hebrew alphabet to fulfill the needs of the twentieth century became apparent. Jan LeWitt an unqualified graphic designer working on a Yiddish newspaper in Poland noticed how bad the Hebrew type looked against the Latin. In 1929 at the age of 21 LeWitt designed his own Hebrew alphabet CHAIM (*See appendix A2*). This is now one of the more popular of the display faces in use in Israel to-day. I think that the success of this face is due to the fact that the designer based the letters directly on a living style and not on the Latin letters in that style.

<sup>1</sup> These variations on the gothic based typeface have grown to be known as the *Traditional* Hebrew letter style even though it is based on the Latin Gothic style. An interesting theory is the following. In the book 'The Visible Word' Javal makes the point that the Gothic Black Letter caused a high proportion of shortsightedness in the German people. Likewise statistics show that a higher than average proportion of Jewish people are shortsighted. This could partly be due to the fact that the traditional Hebrew letter, which resembles the Black Letter in style and weight, could also impair ones eyesight.

In 1931 Hugh J Schonfield a typographer living in England felt he ought to contribute to the much needed modernisation of the Hebrew alphabet. In 1932 his book 'THE NEW HEBREW TYPOGRAPHY' was published – the title being a little presumptuous of him! In this book he discusses the need for a *new Hebrew typography* and puts forward proposed designs for a new Hebrew alphabet. This alphabet has an upper and lower case of characters and the letter forms are based on the Latin enabling one to adapt the forms to any Latin style (*See appendix A3*).

At around this time, Eric Gill, who was living in Israel designed some Hebrew letters which he cut into walls. These Hebrew letters formed the basis of the typeface GILL. This was a serifed face which never caught on. His use of serifs in this face is very similar to the use of serifs in the Latin alphabet (*See appendix A4*).

## 2. THE HEBREW AND LATIN LETTER

### i. COMPARISON

If one gives some Hebrew text to someone that knows the Latin alphabet but not the Hebrew, an automatic reaction is to turn it up-side down. There are two possible reasons for this. Firstly because the shape of the Hebrew characters flow in the reverse direction to the Latin alphabet and so it is turned to look visually correct. The second possibility is that as the base of the Hebrew characters is at the top of the letters so that they visually hang off the line. As one would be used to the Latin form of characters sitting on the line one would turn it up-side down. An experiment shows that the latter is the reason for people looking at Hebrew up-side down and this difference is obviously visually more disturbing than the letters flowing in the wrong direction (*See appendix A5*). This point of how one sees the characters – either hanging or standing, can be related to a point mentioned by Yochanan Vardimon (Head of Graphics - Bezalel Art College Jerusalem). He pointed out that it is natural to see things standing rather than hanging. This can be shown by a simple experiment described in appendix A6.

A possible difference mentioned earlier was the origination of the serif and the pen mark. These also have different visual uses. The serif has been shown to aid legibility whereas the pen mark only seems to add to the aesthetics of the Hebrew letter. The Latin letter traditionally has a stressed vertical stroke which visually separates each letter from the others. For this reason the serif helps ones eye travel along a line of text thus increasing legibility. With Hebrew characters this does not apply. The *traditional* Hebrew letter has a stressed horizontal line which form visually strong *lines* of text. When comparing the height of Latin characters to Hebrew characters the difference, in either the horizontal or vertical line being stressed, can play visual tricks in creating the illusion that the characters with the stressed vertical line are higher than those with a stressed horizontal line.



*Optical illusion – Which block looks higher?*

It is shown by Javal in ‘The Visible Word’ that the legible part of the lower case Latin letter is the top half and it is the top half of the letters that the eyes travel along when reading. On trying a similar experiment with the Hebrew alphabet no definite conclusions were arrived at. Designers have mixed views on this subject and so it has been decided that the eye must look at the whole word.

There is a still frequent mistake made as to the importance of stressing the wrong lines in both the Hebrew and Latin alphabets. The importance can quite easily be seen by taking monolinear Hebrew and Latin alphabets and comparing them when they have the horizontal and then the vertical lines painted out. This point is illustrated in the following examples of illegible typography in which the wrong lines in the characters have been stressed.



1.

**THE JEWISH  
REPRESENTATIVE COUNCIL  
OF GREATER MANCHESTER  
AND REGION**

2.

*Examples of wrongly stressed Hebrew and Latin alphabets in use today*

1. A shop fascia – the Hebrew has been given the characteristics of Roman letters making them illegible.
2. Latin letters with Hebrew characteristics. This is available on an American system called the Caslon Strip Setter. The typeface is called *Jewish Alphabet* and is used to give a Jewish feel to the work. This also is not legible.

The Hebrew characters are very open in design compared to the Latin letters and likewise much simpler shapes. This causes a problem in matching up the weights of the two alphabets. If one unwinds the lines used to make up the Hebrew alphabet and likewise with the Latin alphabet the length of line from the Latin alphabet will be proportionally longer than that of the Hebrew alphabet<sup>1</sup>. For this reason one finds that when balancing the weights of a Hebrew and Latin word the thickness of the lines in the Hebrew characters will be wider than those of the Latin characters. This is seen more clearly in a comparison of two monolinear alphabets.

אבגדהוזחטיכךלמםנס  
abcdefghijklmno

*New Narkis matched in weight with Univers*

The Latin lower case alphabet has seven ascending characters and five descending characters where as the Hebrew alphabet has only one ascender and five descenders which are not that frequently used. This point obviously does not help the designer but to help minimise the difference it would obviously be sensible to choose Latin typefaces with large x heights or rather, small ascenders and possibly descenders. These typefaces generally also look more *open*. When Hebrew type is matched in height with Latin u/lc characters the body height of the Hebrew characters should be fractionally higher than the x height of the Latin, or when using Latin caps only, the Hebrew should match the height of the Latin caps.

Telephone טלפון Telephone

*Comparison of Latin with large and small x heights against Hebrew*

The word 'Telephone' has been chosen for use in examples due to both the English and Hebrew words having ascending and descending characters.

<sup>1</sup>Discussion with Zvi Narkis – see Appendix B1.

In comparing a block of Hebrew text with a similar block of Latin text the overall visual appearance of the two blocks are different. Whereas a block of text in Latin characters set solid produces a uniformly grey area the same in Hebrew gives what is described by Schonfield in *The New Hebrew Typography* as ‘Horizontal black bands which fail to diffuse into a uniform grey mass’. This is due to the infrequent occurrence of ascenders and descenders which leaves a white space between type which is set solid. This point can be slightly rectified with the use of the vowels which fill out the space.

Another fact that helps produce the uniform grey in a block of Latin alphabet text, opposed to the black and white stripes with the Hebrew, relates to the vertical and horizontal stress on the characters.



The left hand diagram represents two lines of Latin text and the right represents the Hebrew weighted letters. This gives the illusion that there is a wider horizontal space through the middle of the right-hand diagram, thus producing *black and white stripes*. Likewise, when matching letterspacing, especially with non monolinear Hebrew / Latin alphabets, variations must be made in the letter and word spacing. This being due to the fact that visually there is more space between vertical than horizontal lines in a horizontal plane.

When comparing any Hebrew text with its English translation a difference which always has to be taken into account is that they will differ in length. This being due to the Hebrew being more concise, having shorter words and the fact that vowels are not characters. When translated into English, Hebrew is about 20% shorter in length. Biblical texts can be up to 50% shorter. Likewise when using other languages these percentages will vary.

One thing that both alphabets share is that they both use Arabic numerals. It is hard to believe that the same numbering system can be used with both these alphabets when they are obviously so different in character. In fact the Arabic numbers do not really go perfectly with either alphabet. Comparing them with the traditional Latin alphabet, the numbers 2, 5 and 7 are not in keeping with the stressed vertical lines and vice versa with the Hebrew alphabet. Even the use of cap height numbers with the Latin u/lc alphabet looks visually wrong when setting in English. This mistake is due to the fact that in Germany, where a lot of the Latin faces were cut, all nouns are set with capital first letters so the numbers were also set at cap height<sup>1</sup>. In the English language where we use capital letters not so frequently the numerals in cap height do not fit in and even more so with Hebrew if set to the ascender height. Also whereas a cap height numeral is in keeping with the weight and complexity of both the upper and lower case Latin alphabets it does not relate at all to the Hebrew alphabet. This difference is even larger when one realises that one is theoretically not comparing the Hebrew alphabet to a cap height numeral but a Latin x height number. Examples show that numbers with the height of the single Hebrew ascender, look out of place and numbers at the body height of the Hebrew are proportionally too complex, so what should one do? On mentioning the use of old style numerals with Hebrew, all Hebrew designers and typographers automatically without thinking dismissed the idea. This was due to the fact that theoretically the old style numerals were designed to compliment the Latin lower case alphabet. Another name for the old style numerals are Hanging Numbers. These styled numbers do in fact visually hang off the the x height. This can be compared to the same line off which the Hebrew characters hang. There is nothing wrong with using old style numerals with Hebrew – in fact they look visually better with the Hebrew than cap numerals. The only problem with this is the fact that as the old style numerals are generally associated with the word *old* and the only type faces with these sets of numerals are the traditional non-monolinear founts. It would be useful to design old style monolinear numerals for work which includes Hebrew.

<sup>1</sup>Eliahu Koren - Appendix B3

Telephone 03267 טלפון

Telephone 03267 טלפון

Telephone 03267 טלפון

*Numerals set to Latin cap height, x height and Old Style Numerals (ITC ÉLAN)*

Due to the differences in the alphabets, choosing equivalent typographic conventions, such as italicising Hebrew, can cause problems. Only one of the main eight Hebrew typefaces has a specially designed italic face. This is DAVID which is slanted this way ‘\’. This being a mirror image of the direction Latin characters are slanted, due to the alphabets reading in opposite directions<sup>1</sup>. This reasoning is agreed with by most type designers. The general public however, prefer Hebrew to slant this way ‘/’. Historically, examples of hand written Hebrew slant in both directions. This could just depend on whether the scribe was right or left-handed. Reasons for Hebrew italic slanting this way ‘\’, include the fact that when running (italic should be dynamic - Zvi Narkis), the head is always in front of the body. A reason for Hebrew to slant this way ‘/’, as preferred by the public is that people are used to reading Latin italic in the same direction. Also, the earlier digital phototypesetters only italicised in this direction. Another reason given for the generally preferred angle is that its direction is in the natural hand movement of a right handed person. A reason for this angle ‘/’, being preferred, based on previous research is the following. Italic should show movement in the direction it is to be read. In the Latin alphabets, by securing the characters at their base and pushing them in the direction they read this angle is formed ‘/’. In Hebrew it has been shown that a strong difference from the Latin characters is the fact that the Hebrew letters hang off the line, so its visual base is at the top of the characters. Taking this into account, when Hebrew is secured and slanted it also produces this slant ‘/’.

<sup>1</sup>There was also a face cast called PERETZ (Jerusalem Type Foundry, Catalogue 1959). This had an italic form which slanted this way ‘/’.  
Hugh Schonfield (Appendix A3), in trying to imitate Latin typography, slants the Hebrew alphabet this way ‘\’.

The use of enlarged capital letters at the start of a chapter with the Latin alphabet has no direct Hebrew equivalent. Historically, whole words in Hebrew were enlarged. Enlarging a single character in Hebrew can cause problems. Due to the simplicity of the Hebrew characters, it can be confusing as to what the character is if there are no others to compare its proportions to.

There is also the question of whether the equivalent of a Latin raised cap is a Hebrew raised or drop cap. This being due to the Hebrew characters hanging from the line. If the Hebrew letter YOD is raised, this being a short character, it will float, detached, above the body text.



These three Hebrew characters can be confused with each other if viewed individually, as an enlarged initial letter, due to the simplicity of the letter forms. The Latin characters do not share this problem due to their more complex form. There can be some confusion between the Latin upper-case 'I' and lower-case 'l'. This is no problem in the situation mentioned as at the start of a sentence it is always a capital letter.

If the first word of some Hebrew text is enlarged, even if it is set aligned at the bottom of the character, it needs an increased space below it. This meaning that the line to follow has to be indented to the end of the enlarged words. This is due to the descenders also being enlarged which will cut into the line below. This problem does not occur with the Latin alphabet as caps are usually used, these having no descending characters (except the letter 'Q', and 'J' occasionally). An example of this can be seen in Appendix C1.

It is apparent that Israeli designers quite often use only one case of Latin characters, as in Bauhaus typography. This could be due to the fact that they are used to the single case of Hebrew characters but this is no reason for using only upper or lower-case Hebrew characters. This being an example of where compromises in one language should not be made to suit the other.

## ii. HEBREW LETTER / TYPEFACE DESIGN TODAY

There are a large number of Hebrew letter and typefaces to-day but few good ones. As with the Latin alphabet the ease with which one can reproduce type now has caused a large number of badly designed typefaces to be available. This large range of Hebrew typefaces is available mainly in transfer lettering with only a few on typesetting equipment for text setting. Due to the large range of Hebrew faces and the fact that text setting can be much more controlled than display and logo typography this work will be based on the eight faces that are available for text setting. This is a good starting point for the following reasons. As there are many more Latin text faces than Hebrew it is more sensible to start with the Hebrew faces and have a large choice to compare them with than vice versa. It is very hard to make rules about the use of display faces as there are so many variations for their use and so a useful guide line is to compare them to the relevant points arising from text faces. Unlike the ever growing range of display faces produced as transfer lettering the range of text faces available is and will be pretty static. This is due to the fact that the demand for varied Hebrew founts on setting systems does not justify the expense of a large range of text faces. For this reason the newer Hebrew faces are designed with the fact in mind that they will be mechanically italicised rather than there being a separate fount (Zvi Narkis appendix B1).

The typefaces in use today for body text are<sup>1</sup>; David, Narkis, New Narkis, Frank-Ruehl, Hebrew and Hadassa. There is also Koren which is under special license of Koren publishing. The last two faces are Chaim and Miriam. Chaim is more of a display face but a similar text face called Acharoni will soon be available for photosetting. Miriam on the other hand is a very fine type used mainly for footnotes rather than blocks of text. There is also the Raschi script, this is used for religious commentaries but the characters bare little resemblance to the Hebrew letter.

These nine typefaces can be split up into three groups, those of a *traditional* feel based on the written Hebrew letter, and then those designed to bring Hebrew typography up to date which can be split up into monolinear and non-monolinear. Likewise Latin typefaces can be split up into the same three groups. Groups have not been divided depending on serif or pen mark as this point is not so relevant when choosing a face.

<sup>1</sup> Examples of these typefaces are shown in Appendix A9

### 3. TYPE REPRODUCTION

#### i. INTRODUCTION

The two most practical ways of getting Hebrew type reproduced to-day are transfer lettering and phototypesetting. Due to the very free nature of transfer lettering the only large problems one is likely to come across will be with the photosetting. Transfer lettering is of course out of the question for text setting.

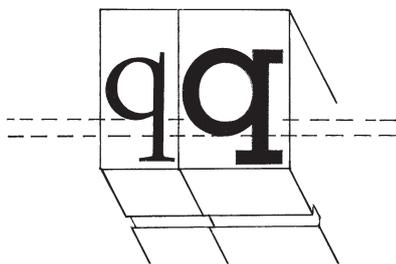
#### ii. TRANSFER LETTERING

There are three main international companies that produce a Hebrew range available in Israel; Letraset, Mekanorma and Transfertec. Whereas both Letraset and Mekanorma are both available in England, Transfertec is an Italian based company which has not been launched in England. All three companies have large evergrowing ranges of Hebrew, of which in England Letraset seems to be the best. As transfer lettering is the sort of thing where one has so much control over its use there should not be any limitations with its use. This is true and can sometimes be the quickest way to create a *namestyle* but there are one or two points to look out for. As with the Latin alphabet, letter-spacing can be a great problem. This being due to the fact that the sheet of lettering generally covers up the word being set, this making it hard to get an overall equal letterspacing. Along with this problem a point that has been noticed particular to the Hebrew alphabet is, guide lines for laying the type in a straight line are positioned below the characters. As mentioned earlier the Hebrew alphabet *hangs* off the line rather than sitting on the line. Having the guide line for aligning the Hebrew type below the character and not above should only hinder the problems of laying the letters in a straight line. A number of the Hebrew sans serif typestyles in Letraset have listed alongside them possible Latin faces to be used with them. Many of these Hebrew faces have been designed to go with specific Latin faces. 'It is in fact a major sales point if a Hebrew face has an equivalent Latin face' (Quote, Israel agent for Letraset).

### iii. PHOTOTYPESETTING

As with the transfer lettering there are three main typesetting companies which have a Hebrew range of founts and offices in Israel. Of these both Linotype-Paul and AM Varsityper have Hebrew founts in use in England. Typesetting systems can be split up in to four catagories, these known as 1st, 2nd, 3rd and 4th generation systems. The only difference that is an important design limitation is the change between 2nd and 3rd generation systems. This difference being the change from using a photographic master (a negative) to storing the shape of each character in digital form on a disk. There are advantages and disadvantages with both of these systems and once perfected the latter system will be better in all aspects. At present the advantage of the photographic system is that even large type sizes have perfect edges where as in the digital type where the characters are made out of little dots the larger type sizes have ragged edges. With time this problem will diminish. The advantage of the digital systems over the photographic is the flexibility of the type. Being stored in digital form it enables one to electronically slant characters, making a form of italic – this being important for an alphabet with a limited number of founts and variations with in the families. Likewise type can be expanded or condensed by any increment.

The change from metal type to photosetting also affected the development of Hebrew typesetting. With metal type it would have been very hard to line up Hebrew and Latin type, or even different Latin founts on the same line as alignment depended on the amount of metal above and below the character which in turn depended on the size of the founts, ascenders and descenders.



*Non-aligning metal type (60 point Garamond and Rockwell)*

This problem was solved and another problem developed with phototypesetting. Photosetters are designed to automatically align type at its base line enabling any varied combination of large and small ascender

founts to be mixed and align perfectly at their common base line. This flexibility in typesetting now raises a problem. Hebrew characters, it has been shown, *hang off the line*, meaning that theoretically Hebrew type should be aligned at its baseline which in this case is the top of the character. With time Hebrew type aligned at the bottom (not base) of the character has become accepted due to the fact that that is how the machines work and at the same time it has solved another problem. If Hebrew was aligned at the top of the character how would one set it along side Latin type? It could look like this.

abcdefghijklmnopwx זחטיכלמ

*Hebrew/Latin aligned at base lines*

For this reason it is not such a bad thing that Hebrew *words* are not aligned on their base line. I have used the expression *words* rather than characters because visually the characters do still align at the top and the difference is only seen when a change in point size occurs within a line of text which is generally between words. Another practical point in favour of aligning Hebrew words at the bottom is the fact mentioned earlier that it is more natural to see things growing upwards and not hanging down.

An advantage that metal type has over phototypesetting at present is that some of the older cast founts include duplicated characters which are longer to help fill spaces. Consequently this aids the justification of lines of type without varying the word spacing. This being based on the hand written Hebrew where to justify lines a number of the characters could be elongated (*see appendix A7*). It is felt that this use of type helped make the printed page more interesting. An equivalent for phototypesetting does not exist except for the automatic adjustment of word spacing. A possibility put forward to the typesetting companies is that software be written to elongate digitally letters in order to justify lines rather than have inconsistent word spacing. The reply was that a similar idea is used for setting Arabic, where one is not meant to alter word spacing, but the cost to develop the software for Hebrew is too great compared to the limited market.

One point which should be the same in all systems but is not, is the actual size, weight and even shape of a given character. These points do not only vary between the different companies but also within a company

depending on the system (*2nd or 3rd generation*) and in some cases even within one system of one company, depending on where the master copy was made. Whereas the difference in weight, size and style between master copies is generally minimal these three points all mounted together can make a considerable difference when balancing the weights of two blocks of text or aligning a single line of text which has two languages in it. For this reason it is not worth specifying point sizes in the different languages to match up, but rather give specifications to be matched with the typesetting which can be varied in half points or for an in-between size, even specified in either mm. or didot on some machines.

Unlike in the Latin typefaces where a face may be slightly altered and its name changed for copyright reasons, changes in Hebrew faces seem to be deeper than this and relate to the question of whether Hebrew type should be made to look like Latin type. This point can be seen clearly with the typeface 'New Narkis'. There are a number of differences between the versions used by Varsityper, Linotype and Letraset. These differences are in fact due to the beliefs of the agents for the companies. The original design is used by Varsityper where both the agent (Meir Doron) and the type designer (Zvi Narkis) have the same beliefs that Hebrew and Latin are two different alphabets and the characters should not share the same basic shapes. Unlike them, Linotype do not see anything wrong with making the characters as near to each other in shape. If one looks at the letter *Samech* on the two systems it is quite clear that one is a letter 'O' where as the other quite definitely is not an O (Appendix 2B).



*The letter Samech on Linotype <sup>a</sup> and Varsityper <sup>b</sup>.*

For further information on phototypesetting see Appendix 8.

## **4. TYPOGRAPHY USING THE TWO ALPHABETS SIMULTANEOUSLY**

### **i. DEFINING THE JOB**

Defining the specific aims of a typographic job is even more important when using two alphabets than when only using one alphabet.

Any typographic job should be able to be placed in one of these groups: Text, one-liners and display (including logo). Text would be defined as any amount of type in which it is the overall feeling rather than individual words that one sees. One-liners, as a single line of text with a translation either in the same line or above/below it. Display/logo, as anything short enough to set letter by letter (1-3 words) either as display typography or as a logo.

With just one language, should a word or line stand out as being more important, or the opposite and look as if it is not vitally important to read? With using more than one language a number of other questions are raised all of which must reflect in ones typography... Should both languages be read or just one? Is one more important than the other? If both languages should be read, should one be used just as a translation for reference (as in a Bible)? Or do both languages need to be read together?

### **TEXT**

1. One of two languages to be read.
2. Book format, when the two languages have to be side by side, including when a second language is to be referred to as a translation, such as in a prayer book.
3. Where both languages have to be read.
4. Text which is mainly one language with the occasional word in the second language.

## ONE-LINERS

5. One of the two languages to be read.
6. Where both languages have to be read.

## DISPLAY / LOGO

7. Both or one of the two languages to be read.

## ii. TYPOGRAPHIC PROBLEMS

Below are listed the main problems which can occur when designing using both the Latin and Hebrew alphabets together. Following this list some possible solutions are discussed. These solutions, which vary depending on the situation, are categorised as grouped in chapter 4i.

- a. The alphabets read in opposite directions.
- b. When translated Hebrew is up to 20% shorter than English.  
(This difference is magnified up to 50% with Biblical Hebrew).
- c. Should the visual impact of the two languages be equal?
- d. Matching up visual weights of words and blocks of text.
- e
  - i. Matching styles of typefaces in the two alphabets.
  - ii. Matching the alphabets in terms of visual height.
  - iii. Matching letter/word spacing in the two alphabets.
- f. The use of numerals.
- g. Finding the right equivalent typographic conventions in the two alphabets. (italic, capitals, drop caps, change of point size, vertically set type, type set in a circle.).

These problems should be solved bearing in mind the fact that the two alphabets should be distant enough not to hinder each others legibility but still hold together as a single piece of work.

### iii. POSSIBLE SOLUTIONS

Listed in this section are some general solutions for the situations categorised in 4i (defining the job). An expansion of points mentioned in these solutions follow, grouped as listed in 4ii (typographic problems).

These ideas have been compiled bearing in mind one main point. This being that wherever practical the two languages should be kept as far away from each other as possible, so that the two alphabets can not be seen at the same time.

### General solutions to typographic situations as listed in chapter 4i

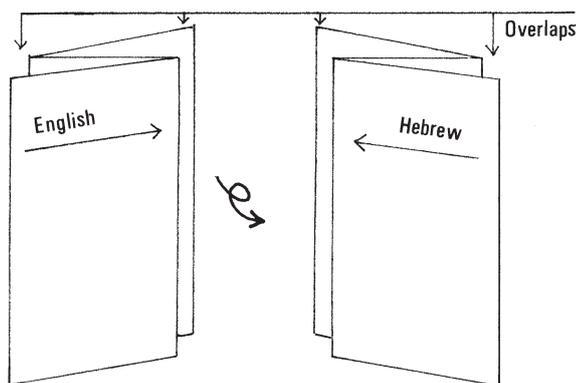
#### 1. TEXT - One of two languages is to be read.

This heading can be divided up in to three groups. Book design, leaflets (double-sided) and texts that are confined to a single spread.

**Book design.** In this situation the most legible solution is to start each language from its natural beginning (from either end of the book – meeting in the middle<sup>1</sup>). This has advantages over two languages that read in the same direction but it also causes problems. These being – where to put illustrations. In general it is not economically viable to repeat all illustrations in both languages. The most suitable alternative is to put all illustrations in the middle where the two languages meet. Similarly any other information, such as an index, that would normally go at the back of a book, can also be inserted in the middle. A problem with this is that one does not have the convenience of the illustrations being along-side the text. A useful tip is to vary the colour or substance of paper used for the book and centre pages so that it is easier to find the illustrations. A variation on this is to have major (or colour) illustrations in the centre and other illustrations amongst the text. Rather than repeat these illustrations in both languages alternative illustrations could be included. If one of the two languages is considered to be more important than the other – which could be shown through a change in the size of type, all illustrations could be put with the main language with page references in the second language. If for some reason the need arises to have two alphabets on the same spread refer to the section headed *Texts confined to a single spread* followed by part 2.

<sup>1</sup>Due to the Hebrew being about 20% shorter than the English this is not the true middle.

**Leaflets** (double-sided). As with a book, in a double sided leaflet the two alphabets can be separated by sides of the sheet of paper/card, so both alphabets can not be seen at the same time. If the leaflet is to be folded a double fold is better than a single fold. If the sheet is only folded once it causes problems when trying to separate the two languages. If they are divided by sides of the unfolded sheet, when folded one language covers the two sides of the outside and the other language the inside. alternatively if the two alphabets start on their appropriate covers and continue inside, this produces a center spread with the two alphabets side by side<sup>1</sup>. A double fold (fan fold) is not so problematic. By printing one language on one side and the other *upside down* on the other side this solves all problems. One outside cover opens to a full side of one language and the other side the other language. If the third side in each language overlaps the previous folds, this produces a visual sign showing the reader which way to open the leaflet.



The difference in length between the two languages can always be taken up by either an illustration (larger illustration) or if a form is needed it could be printed bilingually on the Hebrew side.

**Texts confined to a single spread.** This is an extremely delicate problem in which the following points must be taken into consideration. How the problem is to be tackled depends on whether the same visual impact is needed from both languages, it is preferable if one language can be considered more important than the other. So depending on this the overall feel and weight of the two blocks of text should be either matched contrasted suitably. The positioning of the two blocks of text is also important, especially if the two blocks of text are to be visually balanced.

<sup>1</sup>This situation often occurs in invitation design. The format should be treated as explained under Book Format (when the two languages have to be side by side).

It is important not to have the two languages reading into each other, this can be avoided by either having the two languages reading outward from the middle or positioning the two languages one on top of the other rather than side by side (this can make the top language look more important). If one of the languages is not as important as the other, and this is shown in its weight and size, the above problem is not so great as the two alphabets are already on different visual planes. For this problem relating specifically to book formats see part 2.

**2. Book format** – when the two languages have to be side by side – including when a second language is to be referred to as a translation, such as in a prayer book.

In this situation the unchangeable fact is that in a conventionally bound book (bound along the vertical side), one of the two languages will have to read backwards. This means that one of the languages will be set in its natural page by page format but the pages will be bound in reverse order, so in order to read this language the pages will have to be turned in reverse order<sup>1</sup>. Which ever language is chosen to be collated backwards automatically in my opinion becomes the secondary language. Rather than confusing the situation even more by trying to make up for this point in other ways, it has been decided that if anything this second language should be made visually even less significant. There are three main variations as to how the pages of type can be set out. The two languages on facing sides of the double page, or both languages on the same sides, split either vertically or horizontally.

As always there are advantages and disadvantages in all the formats. An advantage of splitting the two languages over a single side is that due to the varying lengths of text the page splits do not have to be 50/50. If the languages are one to a side, this gives the same amount of space to both languages. A disadvantage of having the two languages share the same side is that they are visually close together rather than having the central gutter to split them. As mentioned previously, separating the languages by the gutter gives equal spaces to two languages which can differ in length up to 50%.

<sup>1</sup>If a book is bound along the top (horizontal) edge, which is a possibility for publications such as exhibition / museum guides, this problem does not arise. In this instance both languages read from the top page through to the bottom page, with no problem of turning the pages from left to right or vice versa.

To compensate for this, if the primary language is the Hebrew it could be set in a larger point size. Other ways of varying the text space are to have a larger margin on one side which could be filled with a vertical boarder or by inserting illustrations. A small difference in length can also be made up by ranging the Hebrew and setting the English justified.

A common (and now accepted as correct) mistake in bilingual books and single folded leaflets is the fact that the Hebrew is always printed to the right of the English. This produces spreads in which the two languages always read into each other. There are a number of reasons why this format is wrong and the only reason for its continued use is that people are used to it. It is not known where or when this idea originated but Plantins' Polyglot Bible of 1568 shows the correct format with the Hebrew to the left. Reasons for the Hebrew to be printed to the left of the English are the following. In a book which opens the English way it is the right side of each double page spread that is seen first (the more expensive advertising page), similarly, in any booklet like this one, which is only printed on one side of each sheet, it is the right side of each double page – the predominant side. Likewise, in a book which opens the Hebrew way, it is the left side which is predominant. Basically what this means is, by putting the Hebrew always to the left of the English, if a book is designed to be opened the English way, the English is on the predominant side, and if a book is designed to open the Hebrew way, the Hebrew is on the predominant side. By having the Hebrew to the left of the English this also means that the two languages will read outwards from the gutter rather than inwards into each other. With trying to keep the two alphabets visually as distant as possible surely it is more sensible to have them reading away from each other. If the second language is to be referred to as a translation it may seem better to have the two alphabets reading into each other, but this is not true. If the languages are set reading into each other the distance between the first word in each Hebrew line to its equivalent English word will be the whole double spread of the book. If the languages are set reading away from each other this distance is minimised to the width of the gutter. A final reason for placing the Hebrew to the left of the English – reading away from each other, is that if the texts read into each other and are not justified type, it produces a disturbing uneven space down the centre of the texts. This does not occur if the texts read into each other. Unfortunately, even with all these reasons, publishers are generally not willing to take the risk of reversing the format.

**ב**ראשית ברא אלהים את השמים ואת הארץ: והארץ היתה תהו ובהו והשך על פני תהום ורוח אלהים מרחפת על פני המים: ויאמר אלהים יהי אור ויהי אור: וירא אלהים את האור כי טוב ויבדל אלהים בין האור ובין החשך: ויקרא אלהים לאור יום ולחשך קרא לילה והי ערב והי בקר יום אחד: ויאמר אלהים יהי רקיע בתוך המים והי כבדיל בין מים למים: וועש אלהים את הרקיע ויבדל בין המים אשר מתחת לרקיע ובין המים אשר מעל לרקיע והי כן: ויקרא אלהים לרקיע שמים והי ערב והי בקר יום שני: ויאמר אלהים יקוו המים מתחת השמים אל מקום אחד ותראה היבשה והי כן: ויקרא אלהים ליבשה ארץ ולקוה המים קרא מים וירא אלהים כי טוב: ויאמר אלהים תרשא הארץ רשא עשב מוריע ורעעץ פרי עשה פרי למינא אשר ורעו בו על הארץ והי כן: ותוצא הארץ רשא עשב מוריע ורעעץ פרי אשר ורעו בו למינהו וירא אלהים כי טוב: והי ערב והי בקר יום שלישי: ויאמר אלהים יהי בארת ברקיע השמים להבדיל בין היום ובין הלילה והי לארת ולמעותים ולמים ולימים וישנים: והי למאורות ברקיע השמים להאיר על הארץ והי כן: וועש אלהים את שני המארות הגדלים את המאור הגדל למשלת היום ואת המאור הקטן למשלת הלילה ואת הכוכבים: ויתן אתם אלהים ברקיע השמים להאיר על הארץ: ולמשל ביום ובלילה להבדיל בין האור ובין החשך וירא אלהים כי טוב: והי ערב והי בקר יום רביעי: ויאמר אלהים ישרצו המים שרץ נפש חיה ועוף ועוף על הארץ על פני רקיע השמים:

CAPVT PRIMVM.  
**A**N principio creauit Deus caelum & terrā. Terra autem erat inanis & vacua: & tenebrae erant super facie abyssi: & spiritus Dei ferebatur super aquas. Dixitq; Deus, Fiat lux. Et facta est lux. Et vidit Deus lucem quod esset bona: & diuisit lucem à tenebris. Appellauitq; lucem diem; & tenebras noctē. Factumq; est vespere & mane dies vnus. Dixit quoque Deus, Fiat firmamentū in medio aquarum; & diuidat aquas ab aquis. Et fecit Deus firmamentum, diuisitq; aquas quae erant sub firmamento, ab his quae erant super firmamentū. Et factum est ita. Vocauitq; Deus firmamentū, caelum: & factum est vespere, & mane dies secundus. Dixit verò Deus, Congregentur aquae quae sub cælo sunt, in locum vnum: & appareat arida. Et factum est ita. Et vocauit Deus aridā, terram: congregationeq; aquarum appellauit maria. Et vidit Deus quod esset bonum. Et ait, Germinet terra herbā virentem & facientem semen; & lignum pomifera faciens fructū iuxta genus suum, cuius semen in semetipso sit super terram. Et factū est ita. Et protulit terra herbam virentē, & facientē semen iuxta genus suū, lignumq; faciens fructū, & habens vnumquodq; sementem secundū speciem suam. Et vidit Deus quod esset bonum. Et factum est vespere & mane dies tertius. Dixit autē Deus, Fiant luminaria in firmamento caeli; & diuidant diem ac noctē; & sint in signa & tempora & dies & annos: Vt luceat in firmamento caeli, & illuminent terrā. Et factum est ita. Fecitq; Deus duo luminaria magna: luminare maius, vt praesset diei: & luminare minus, vt praesset nocti: & stellās. Et posuit eas Deus in firmamento caeli, vt lucerēt super terrā: Et praesset diei ac nocti; & diuiderent lucem ac tenebras. Et vidit Deus quod esset bonū. Et factum est vespere, & mane dies quartus. Dixit etiam Deus, Producant aquae reptile animæ viuētis, & volatile super terram sub firmamento caeli.

תרגום אונקלוס

**ב**ראשית ברא אלהים את השמים ואת הארץ: והארץ היתה תהו ובהו והשך על פני תהום ורוח אלהים מרחפת על פני המים: ויאמר אלהים יהי אור ויהי אור: וירא אלהים את האור כי טוב ויבדל אלהים בין האור ובין החשך: ויקרא אלהים לאור יום ולחשך קרא לילה והי ערב והי בקר יום אחד: ויאמר אלהים יהי רקיע בתוך המים והי כבדיל בין מים למים: וועש אלהים את הרקיע ויבדל בין המים אשר מתחת לרקיע ובין המים אשר מעל לרקיע והי כן: ויקרא אלהים לרקיע שמים והי ערב והי בקר יום שני: ויאמר אלהים יקוו המים מתחת השמים אל מקום אחד ותראה היבשה והי כן: ויקרא אלהים ליבשה ארץ ולקוה המים קרא מים וירא אלהים כי טוב: ויאמר אלהים תרשא הארץ רשא עשב מוריע ורעעץ פרי עשה פרי למינא אשר ורעו בו על הארץ והי כן: ותוצא הארץ רשא עשב מוריע ורעעץ פרי אשר ורעו בו למינהו וירא אלהים כי טוב: והי ערב והי בקר יום שלישי: ויאמר אלהים יהי בארת ברקיע השמים להבדיל בין היום ובין הלילה והי לארת ולמעותים ולמים ולימים וישנים: והי למאורות ברקיע השמים להאיר על הארץ והי כן: וועש אלהים את שני המארות הגדלים את המאור הגדל למשלת היום ואת המאור הקטן למשלת הלילה ואת הכוכבים: ויתן אתם אלהים ברקיע השמים להאיר על הארץ: ולמשל ביום ובלילה להבדיל בין האור ובין החשך וירא אלהים כי טוב: והי ערב והי בקר יום רביעי: ויאמר אלהים ישרצו המים שרץ נפש חיה ועוף ועוף על הארץ על פני רקיע השמים:

A page from Plantin's Polyglot Bible of 1568. Points to note are: The two languages read away from each other, similar ornamental initial letters are used in both languages, visually the page is well balanced and to compensate for the difference in length of the two languages, the Latin characters are smaller and the page is divided off-centre.

### 3. TEXT - Where both languages have to be read.

In this situation there is very little one can do as far as separating the two languages. This being due to the fact that they have to run into each other. The blocks of text should be balanced in weight, style and size (in the overall appearance of the blocks, not the individual words). When positioning the texts they should not be positioned side by side as this will cause confusion as to which should be read first. Depending on how important good legibility is over appearance the use of non justified text can be used to aid legibility.

בליל שבת, שני במאי 1980, נרצחו בחברון שישה  
מתפילה במערת המכפלה. רצח בית הדסה, למחרת  
איזור יהודה ושומרון, תא"ל בנימין בן אליעזר  
נגד ראש עיריית חברון.

**Somewhere in the oakwood an owl  
felt safe, secure. Against its gnarled bark,  
body trembled in fear of the horrors to  
Spinning round the girl saw the thing.**

As shown above, by ranging the type appropriately it indicates the directions the texts are to be read. A problem with this is in balancing where the ranged side of one block of text should be in relation to ragged sides of text above and below it, and vice versa on the other side. For this reason it might help to justify the main body of text and just range the second language.

### 4. TEXT - Mainly one language, with an occasional word in the second language.

The main problem in this situation is the balancing of the words so as not to draw too much attention to the change in alphabet. This problem is explained in part 'd' of the following section. The only other complication arises if the text in the second language runs over a line break. The problem is the fact that if the second language is set starting its second line at its natural end, and it does not fill the line, then a bilingual line of text is produced with no definite end to begin. The solution to this is to always set the second language as if it is dropped in to the space the main language would be filling.

אירוע תרבותי ובו פסטיבאל תחרותי למוזיקה, דראמה, סיפורות, אמנות ומלאכה. הזמנת כרטיסים במשרד האייסטדפוד: Royal אירוע תרבותי ובו פסטיבאל תחרותי למוזיקה, דראמה, % סיפורות, אמנות ומלאכה. הזמנת כרטיסים במשרד האייסטדפוד: Royal National Eisteddfod Office 10 Park Place, South Glamorgan טלפון: קארדיף שלושה שבועות של תרבות ובידור בפסטיבאל האמנויות הגדול ביותר בעולם. הזמנת כרטיסים מבשרדי חברת הפסטיבאל.

על פי לוח זמנים קבוע, יוצאים האוטובסים כתדיות לכל הערים הראשיות בבריטניה. זוהי הדרך ביותר לנסיעה בתחבורה הציבורית. ובסיסה הלונדוני הוא תחנת האוטובוסים בויקטוריה, באקינהאם פאלאס רוד Victoria Coach Station, Buckingham Palace Road, London לשירותי אוטובוס בסקוטלנד התקשר עם חברת "סקוטיש אומניבס". ניתן לרכוש כרטיסים לכל יעד נסיעה בנפרד, אך אם כדעתך להרבות בנסיעות, כדאי יהיה לרכוש כרטיס

*confusing*

*best solution*

This point is also shown on page 4 in the example of printing from 1726.

## **5. ONE LINERS - One of two languages to be read.**

Two main situations in which this situation arises are in letter-headings (for international use) and in captions, under illustrations which cover for the two languages. Two ways in which the type can be set in these situations are either, one language on top of the other, or in one continuous line. In both these situations care must be taken in balancing the two alphabets weights, style and if both alphabets are in the same line care should also be taken to balance the height and letterspacing of the characters. All these points are explained in the following section. After stating in the previous heading that when two texts are set side by side they should read away from each other, an exception to the rule is when only a single line of type is used. In this situation, especially if a second colour can not be used to separate the two languages, it can be confusing trying to find where the two languages start, and so it is easier if they start at either end rather than the centre. This point also depends on if the line of text is followed by running texts that read away from each other. In this instance it may be better to have the two languages in the single line read away from each other.

If the two alphabets are to be set on top of each other the question is, which language should go on top. If there is a primary and secondary language the obvious answer is that the primary language should go on top. If one is mainly concerned with legibility it is felt that the Latin alphabet should always go on top of the Hebrew. This is because it is proven that when reading Latin lower case characters ones eyes travel along the top of the line. When reading Hebrew characters the same does not apply. From the point of view of reading the Latin characters, by putting them above the Hebrew, the Latin reading line is separated from the Hebrew characters.

#### **6. ONE LINERS - Where both languages have to be read.**

In this situation the type should be handled in the same way as listed under heading five for text set in a single line.

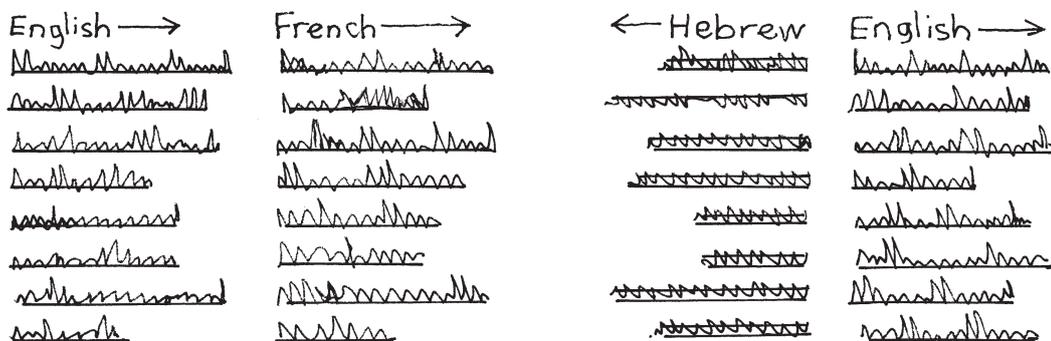
#### **7. DISPLAY & LOGO – Both or one of the two languages to be read.**

No specific guidelines can be given under this heading. Basically one should design, bearing in mind all the points mentioned in the previous and following sections.

## Study of typographic problems as listed in chapter 4ii.

### a. The alphabets read in opposite directions.

All in all it is felt that the fact that the two alphabets read in opposite directions is advantageous rather than a disadvantage. The only disadvantages that occur are in text setting. In a publication in which both languages have to be in the same spread the problem arises due to the pages having to be turned in opposite directions. So either one of the languages has to have its pages collated in the wrong direction or alternatively the publication has to be bound along its top horizontal edge. The other problem is when a word in one alphabet has to be set in a block of the other language. In this situation the reader has to jump forward and back changing reading direction. This is even more confusing when more than one word is inserted and it has to continue into a second line (as described in part 4 of the previous section). Advantages of the second language reading in the opposite direction are the following. In a bilingual publication in which the two alphabets do not have to be facing each other, there are no problems, both languages can start from their natural ends. If the two languages read in the same direction the problem would be that one of the languages would have to start half way through the publication. In the situation where the two alphabets are on the same spread, it is also advantageous. If the two alphabets read in the same directions, both languages will start at different parts of the page, this producing two paragraphs that start in different positions on the page. If the two alphabets read away from each other from a central point there is no problem. The starts of both paragraphs are seen simultaneously at the centre of the spread.



It can also be advantageous in setting the two alphabets so that they read into each other. In a bilingual sign, if the two languages read in the same direction there is always the question of which language should one be reading, and from the design point of view, which alphabet should come first. Having two languages that read in different directions is much easier. By setting them to read into each other, each language will start in its natural position. Likewise, having the two languages reading into the centre, visually draws one into the spread.

Telephone    Telefon

Telephone    טלפון

Telephone  
Telefon

**b. Difference in lengths of text.**

The fact that Hebrew, when translated into English, is generally about 20% shorter (50% with biblical texts) is not a great problem. As a general rule a designer should not try to balance the visual lengths of the texts by enlarging the point size of the Hebrew or by inserting excessive leading. Both languages should be set in appropriate sizes for the job and start and finish in their natural positions, page for page. If set in columns, the column width of the Hebrew can be shortened to compensate for the difference. If one language is set on top of the other the page should be divided appropriately and not across the geometric centre of the page. There is a problem when the two languages are printed on facing sides of a double page. This being the wasted space on the Hebrew side. If the Hebrew can be considered the more important language, then this is a situation in which the Hebrew can be set in a larger point size than the

English. This will make the Hebrew look more important and balance out the areas of text. An alternative possibility, and for situations when the Hebrew can not be enlarged, is to include illustrations on the Hebrew side. Also the balance can be made by having a wider margin on the Hebrew side, this could include a printed, vertical, border. In both display typography and what has been classified as one liners, this difference in lengths can be used more creatively. Included in the possibilities are, enlarging a single word of the Hebrew, which can be visually more interesting than slightly enlarging all the Hebrew. If dates or times appear in the text, and are set numerically, these need not be repeated in both languages. Likewise there is no reason why a bilingual heading should have exactly the same wording in both languages. The headings could be different, with any points missed made up in the body text.

### **c. Should the visual impact of the two languages be equal?**

If the two languages can not be seen simultaneously then as near to the same visual impact is needed from both languages, providing one is as important as the other. Likewise if both languages will be read, and can be seen simultaneously, they should be equally balanced. In situations where only one of the two languages are to be read, but they can be seen simultaneously, it is not advisable to balance the two alphabets. One of the languages should be considered the more important and the typography of the second played down. If everything is repeated in both alphabets with the same impact, this can destroy the visual impact that could be created in saying it once. However, if both languages are as important as each other, they can be balanced in different ways. By printing one language in a different colour, this can place it in a different visual plane. This will also stop the two languages from running into each other. The language can then be rebalanced with the more prominent one by enlarging its point size. If it is the Hebrew that is enlarged this also compensates for the differing lengths of text. Alternatively the difference in lengths can be made more prominent by enlarging the English text.

#### **d. Matching up visual weights of words and blocks of text.**

Matching up the visual weight of single words (or lines), is completely different to balancing in weight two blocks of text. It is also a different situation if it is a word or two of one language inserted into a block of text set in the other language.

#### **BALANCING WORDS OR SINGLE LINES OF TEXT**

In this situation it is the visual weight of the average character that has to be matched with its equivalent. The visual weight of a character depends on three main points. The length of line used to draw the character. The actual thickness of the line (in non-monolinear alphabets, the average thickness), and the proportion of black to white within the character. In general it is more appropriate to use Latin faces which are both made up of shortened lines and have large x heights. This is due to the fact that Hebrew characters are open in design and are made up of few lines. For this reason, when balancing Hebrew with Latin characters, the line thickness of the Hebrew characters should be heavier than the Latin characters.

#### **BALANCING BLOCKS OF TEXT WITH EACH OTHER**

In this situation, rather than matching up the weights of characters with each other, it is the overall *grey* weight of the blocks of text that have to be matched. The problem with this is, whereas with the Latin u/lc alphabet lines of text merge into each other, forming a grey mass, with the Hebrew alphabet this does not happen due to there only being one ascending character and few descenders. This produces an area of black and white stripes. This problem can be minimised by setting Hebrew faces without leading. In theory, due to the infrequent occurrence of ascenders and descenders in the Hebrew alphabet, proportionally less leading is needed than in equivalent Latin faces. Similarly, due to the more prominent horizontal lines in the Hebrew alphabets, the lines of text are easier to follow. Likewise, the more prominent vertical lines in the Latin alphabet, visually close up the space between the lines. The addition of vowels to Hebrew texts also alters the weight and closes up the space between the lines.

זכר תזכר את-צעקת הענוים. זעקת היתומים  
הגלמודים והנעזבים. זלזול חכמים  
ותלמידיהם האהובים: חילים ראשי בית-  
אבות גבורים. חללים ומדקרים נפלו מליונים.  
חרפה ומשמה היתה לגוים: ירדו חיים שאולה  
בשמע-ישראל ובאני-מאמין. יצאו  
נשמותיהם מעטרין בטלית ותפלין. יבשו  
ויפלמו ויהיו כאין הרוצחין: לאושוין  
בוכנולד ברגן-בלזן, דאכו מידנק וטרבלינגה.  
לקחו והדחקו בתדריגו ונשרפו במוקדות  
הכבשנים בתרפה. לחמו הקדושים הטהורים  
ונפלו פגבורים בגיטו נרשה: מכל פנה זועקים

Frank-Ruehl set 12/12pt with and without vowels.

## BALANCING WORDS FROM ONE ALPHABET IN A BLOCK OF THE OTHER ALPHABET

In this situation the problem is in matching both the weight of the words, as in the first part, and also the space around the inserted word. Due to the different numbers of ascending and descending characters in the two alphabets, and the change in vertical/horizontal lines that are stressed, this can create either a white or dark area around the inserted words. This problem can be minimised by using a Latin typeface with a large x height and setting the Hebrew point size so that its body is slightly higher than the Latin x height.

### ei. Matching styles of typefaces in the two alphabets.

It is advisable to select the most appropriate face for the job in each language without letting one influence the other. Only then should the two alphabets be compared, and changes can then be made in the choice of typeface. A change should only be technical reasons such as it being impossible to balance the weights in a situation where they need to be balanced. In such situations it is easier to find a more appropriate Latin face as there are only eight Hebrew faces from which to chose. A point to bear in mind is that the Hebrew characters are less complex than the Latin and so similar faces will have be proportionately less intricate. When choosing typefaces for a job one should take into account whether one language is less important, in which case possibly a less stylistic typeface will be more appropriate. For possible equivalent Hebrew/Latin typefaces see Appendix A9.

A common mistake when using a *traditional* Hebrew typeface, such as Frank-Ruehl, is to match it up with Times New Roman. The reasoning behind this match is that they are both very legible traditional styled faces. However, from a historical point of view this comparison is wrong. The traditional styled Hebrew faces are generally used for religious and biblical texts. The typeface Times was designed in the 1930's by Stanley Morison specifically for use as a newspaper typeface. Is it really appropriate to use a typeface designed for a daily paper for a religious text?

### **eii. Matching the alphabets in terms of visual height.**

As a general rule, the body height of Hebrew type should be matched so it is slightly higher than the Latin x height, when using u/lc. With Latin caps, the Hebrew should be matched to the cap height. As previously explained, the larger the Latin x height the better the balance. By having a large x height Latin character, this means that to match the Hebrew body height so it is slightly higher than the Latin x height, could mean using a larger point size Hebrew character than Latin character. This has its advantages. Firstly, due to the simplicity of the Hebrew characters, the larger they are the easier they will balance. Secondly, if the Hebrew is a point size larger, this difference can be made up with leading in the Latin alphabet. As mentioned previously, Latin typography needs proportionally more leading than Hebrew, so the additional leading is quite acceptable.

### **eiii. Matching the letter/word spacing in the two alphabets.**

This technicality is really only needed in display typography. When balancing a few words in each alphabet it is found that the Latin characters should be spaced closer than Hebrew (page 15).

### **f. Numerals.**

The problem with using numerals is the fact that they do not look right against the Latin alphabet, they look worse against the Hebrew alphabet and with the two alphabets together they look even worse. Wherever possible one should use old style numerals, which complement the lower-case Latin characters and are more acceptable with the Hebrew alphabet. An exception to this is when only Latin caps are used. Unfortunately there are no sans serif monolinear faces with old style numerals.

In recent years more faces are being produced with old style numerals. These include, Pegasus, designed by Bertholt Wolpe OBE RDI, and Élan, which has just been released by ITC, designed by Albert Boton, co-designer of the typeface Eras. Like Eras, Élan has a relatively large x height which is of use when using the Hebrew alphabet. Élan is a visually monolinear, serifed face. When numerals appear in both Hebrew and Latin texts, which are set alongside each other, and they are visually similar, the numerals from only one of the faces should be used.

**g. Equivalent typographic conventions.**

A great problem with the two alphabets which are so different is, what are the equivalent typographic conventions of one alphabet in the other alphabet?

Italic it has been decided should slant thus ‘/’, in both alphabets. Therefore backslant being the reverse.

It is not very appropriate to have standing, enlarged characters in Hebrew texts. It is better to use drop caps, which hang off the top line, with both the Hebrew and Latin alphabets.

Latin type, which is set vertically, is better reading from bottom to top, whereas Hebrew should read downwards.

Just because Hebrew has only one case of characters, it is no reason to use only upper or lower case Latin characters. Both alphabets should be used to their full extent.

When the point size of Latin characters changes within a line, the characters are aligned at the bottom. Theoretically, with the Hebrew alphabet the characters should align at their base, the top. It is easier, solves problems, and is generally accepted to align Hebrew *words* at the bottom.

When setting type in a circle, a problem when just using a single alphabet is whether the type should continue upsidedown, or be in two right reading semi-circles. This problem does not occur when using the Hebrew and Latin alphabets. By setting the Hebrew in the top half of the circle, and the Latin alphabet in the lower, both alphabets are right reading. Another advantage is that as the visual base of the Hebrew is at the top, this produces a strong outer line around the outside circle. This is not possible with two right-reading lines of Latin characters.

## **5. CONCLUSION**

The problems and solutions discussed in the previous chapter cover most of the dilemmas in design work which contains both the Hebrew and Latin alphabets. As with any design theories, in practice there are always reasons to contradict them. The designer should be aware of the theories mentioned but should also contradict them wherever the need arises.

Appendix C contains a selection of recent work by designers that contains the two alphabets together. There are notes with the designs highlighting any relevant points.

## **APPENDIX A**

1. How the Phoenician letter developed.
2. The typeface 'CHAIM' – Jan Lewitt.
3. 'The new Hebrew typography' – Hugh Schonfield.
4. The typeface 'GILL'.
5. Experiment to demonstrate why non Hebrew readers look at Hebrew characters upside down.
6. Experiment to demonstrate that it is natural to see forms standing rather than hanging.
7. Alphabet and text sample showing the use of elongated characters.
8. Phototypesetting systems and companies.
9. Examples of suitable Hebrew/Latin typefaces.

# 1. HOW THE PHOENICIAN LETTER DEVELOPED

התפתחות המרובע העברי האותיות  
הרומים מתוך האלה-בית העיזודנו

**D** DEVELOPMENT OF THE HEBREW SQUARE-SCRIPT AND THE ROMAN LETTER FROM THE PHOENICIAN CHARACTERS

קמריית ש"ס HEBREW 'STAM'	HEBREW								ARAMAIC				PHOENICIAN				OLD GREEK					OLD ITALIC		הרומית מודרנית MODERN ROMAN
	200 A.D.	100 A.D.	100 B.C.	200 B.C.	200 B.C.	450 B.C.	600 B.C.	800 B.C.	1100 B.C.	900 B.C.	800 B.C.	700 B.C.	600 B.C.	500 B.C.	400 B.C.	200 B.C.	200 B.C.	200 B.C.						
א	א	א	א	א	א	א	א	א	א	א	א	א	א	א	א	א	א	א	א	א				
ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב				
ג			ג			ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג				
ד	ד	ד	ד			ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד				
ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה				
ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו				
ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז				
ח	ח	ח	ח			ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח				
ט	ט	ט	ט			ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט				
י	י	י	י	י	י	י	י	י	י	י	י	י	י	י	י	י	י	י	י	י				
כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ				
ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל				
מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ				
נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ				
ס	ס		ס			ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס				
ע		ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע				
פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ				
צ		צ	צ			צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ				
ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק				
ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר				
ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש				
ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת				

This chart shows the two directions in which the Phoenician letter developed, forming the Hebrew and Roman alphabets. A noticeable difference in the way that the Roman letter developed from the Hebrew letter is that a large number of the Roman/Greek letters had a central vertical line of symmetry during their development. This could be due to the fact that whereas the Hebrew alphabet has always been written from right to left, the Roman alphabet went through a boustrophedonic stage, in which the characters directions changed from line to line. Similarly, in the Roman alphabet, between 600 BC and 500 BC the direction of all the non-symmetric characters changes. This could indicate the point in time after which Roman characters were written from left to right.

## 2. THE TYPEFACE 'CHAIM' – JAN LEWITT

In 1932 Jan LeWitt, an unqualified Polish graphic designer working for a Yiddish newspaper realised how bad the Hebrew typeface looked against the Latin Bauhaus typography, and so designed the typeface CHAIM. Though this was a radical change in the Hebrew letter (which had remained much the same over the past centuries) it was still willingly accepted as a new typeface. The typeface CHAIM soon spread and is now one of the more popular display faces in use in Israel today.

**אבגדוזחטיכלמנסעפצקרשת  
1234567890?!"',:;.ץסןףג**

Comparing CHAIM with the Latin faces that it was designed to complement, there is an interesting difference. Visually both Hebrew and Latin faces put over the same feeling perfectly. If one compares the actual shapes of the characters there is an obvious difference. Whereas the Latin alphabets contain a number of curved lines, the Hebrew typeface is made up from only straight lines. The designer, Jan LeWitt commented on this point saying that he had thought of including some curved lines but in designing a 'Bauhaus' typeface he found no need to use any curved lines. This it has been decided is one of the main reasons for its success over other typefaces. What he has done is designed a typeface based on a period in time rather than basing it on a Latin typeface style. Likewise this point also relates to choosing compatible typefaces. Rather than looking for similar shaped characters one should compare the typefaces bearing in mind the fact that the Hebrew characters are much simpler forms than the Latin.

The question mark, which was not designed along with the rest of the alphabet, is not of the same character as the rest of the letters. The designer does not approve of this addition.

The above information on the typeface CHAIM is a transcript of the relevant points mentioned in a meeting with Jan LeWitt, its designer.

### 3. THE NEW HEBREW TYPOGRAPHY – HUGH J SCHONFIELD

This book records an important dead end in the history of Latin influenced Hebrew typography. To me this book is a record of exactly what one should not do when faced with the differences between the Hebrew and Latin alphabets. The proof of my views being Mr Schonfield's results. It is not only his results that are bad but the whole concept behind the letter and his reasoning. Schonfield's idea is to take the Hebrew letter and amend it with what he calls the good points in the Latin alphabet that are lacking in the Hebrew alphabet. He lists these points as:

1. Not having both an upper and lower case he says does not allow for enough variation between words.
2. The squareness of the letter which he says retards its flow.
3. The horizontal lines are stressed, he feels that the vertical lines should be to make the letter like the Latin letter.
4. Not enough variation in typefaces to express ones-self appropriately.

It is thought that these points, that he thinks are defects in the Hebrew alphabet, are a poor excuse for changing the Hebrew alphabet in the way he has. Firstly, his reasoning for creating an upper and lower case alphabet is meaningless. In Israel today, designers manage very well without two cases of characters. Secondly in the 1930's, when this book was compiled, Bauhaus typography which makes use of only one case of characters was considered good typography. Thirdly, through creating a lowercase alphabet which sits on the line rather than hanging off the line shows his ignorance of this very important difference which is discussed in my work.

The second and third points that he mentions can be linked together. The squareness of the Hebrew letter can be partly blamed on the cutters of Hebrew types. A number of the Hebrew letters were slightly distorted by them to fit into similar blocks as the Roman letter. As far as this point retarding the flow I can not see what he means. Due to the fact that the horizontal lines are stressed rather than the vertical, this in fact increases the flow of the Hebrew characters, where as the Latin letters with the heavy vertical lines become static and seem to need serifs to help ones eyes follow along the lines of type.

The fourth point he makes was true up till when the document was compiled. Over the past 40 years this has been rectified but still lacks the history of the previous years. From examining his results it is clear that he has succeeded in producing exactly what he set out to do. An alphabet based on the Latin letter forms which as such can act as a skeleton to adapt to any Latin typeface. The only problem being that he has destroyed the Hebrew alphabet and created a collection of symbols which do not relate to each other, including some characters which appear to hang from the x height and others which seem to stand on the line.

Examples of Schonfield's typefaces; Hebrew – Caslon Old Face Heavy and Old face Italic, Cabel Light and Bold Italic.

ב ו י ן ן ן א ן א  
א ן ן ן ן א א א  
א א א א א א א  
א א

א א א א א א א  
א א א א א א א  
א א א א

ב ו י ן ן ן א ן א  
א ן ן ן ן א א א  
א א א א א א א  
א א

א א א א א א א  
א א א א א א א  
א א א א

ב ו י ן ן ן א ן א  
א ן ן ן ן א א א  
א א א א א א א  
א א

א א א א א א א  
א א א א א א א  
א א א א

ב ו י ן ן ן א ן א  
א ן ן ן ן א א א  
א א א א א א א  
א א

א א א א א א א  
א א א א א א א  
א א א א

#### 4. THE TYPEFACE GILL

In 1932 Eric Gill moved from England to Israel and settled in Jerusalem. Prompted by the British Governor, Gill designed ten typographic reliefs, to be carved in the stone walls of the Rockefeller Museum. Through this he became interested in the Hebrew letter. An example of his work is shown in the Abstract (page 5). After Gill's death in 1940 it was these carvings that served as a basis for the Hebrew GILL letter. This was completed by Dr Moshe Spizer and cut by Alphonso Ioso.



*The GILL letter*

The Gill letter has never been very popular and is rarely seen in print. It is unlike any other Hebrew face and the letters seem to have Roman serifs rather than the Hebrew pen mark. It is hard to say exactly what the difference between the serif and the pen mark is but it could be the fact that the serif generally has two points to it rather than the one.

#### 5. EXPERIMENT TO DEMONSTRATE WHY NON HEBREW READERS LOOK AT HEBREW CHARACTERS UPSIDE DOWN.

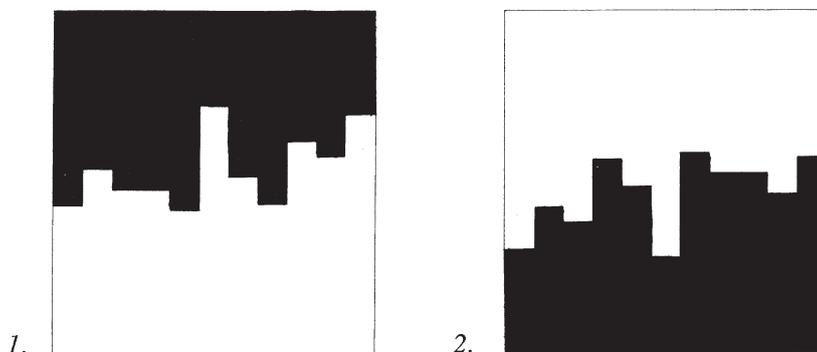
If a reader of a European language is given a Hebrew text, a natural reaction is to hold it upside down. This could be for one of two reasons. Either because the letters flow from right to left, and by holding the text upside down the characters flow in the European direction of left to right. Another reason could be because the Hebrew characters *hang off the line*, rather than standing on the line as with the Latin characters. The following experiment has been devised to highlight the main reason for the Hebrew alphabet looking upside down.

אצב אכיד, הכדלים בו	זזם סיזזח, זיחא צן
אותיות וביניהן יוצו	זצזי זחזיזחזא
טיפוגרפיה הוא אחידו	זזיחא זזח חזיזחזיז:
ש עתה צורך חיוני בז	זז זזיח זחזח חחצ ש
a. עונה לדרישות העכשו.	b. זשצזח חזשיזחזז חזזש.

Illustration 'a' shows some Hebrew text which has been set to give no clues as to which way it should be held, except for the fact that the punctuation sits in the normal European positions. Illustration 'b' is a mirror image of the same text sample. This producing Hebrew characters which flow in from left to right. When given to non Hebrew readers, both sample 'a' and 'b' were held upside down. This experiment gave the same result when using a non-monolinear typeface. This showing that the varying weights of the lines makes no difference. The results of this experiment show that the predominant reason for Hebrew looking upside down is not because it flows in the opposite direction but because it hangs off the line.

6. EXPERIMENT TO DEMONSTRATE THAT IT IS NATURAL TO SEE FORMS STANDING RATHER THAN HANGING

The following simple experiment was put forward by Yochanan Vardimon in demonstrating that it is natural to see an image standing rather than hanging. This relating directly to the fact that the Hebrew letters hang off the line. If given an abstract image as shown below, if given the choice, it is held with the black area at the bottom (diagram 2). This being due to the fact that it is unnatural for the *heavy* black area to hang downwards. Similarly it looks unnatural for an alphabet to hang downwards, unless the reader is used to it. This can be compared to the Indian alphabet which hangs off the line, except, with this alphabet there is a drawn in, *visible*, line from which it hangs.





who will set any face in any alphabet<sup>1</sup>. Alternatively there is G J George – printers and multilingual phototypesetters<sup>2</sup>. This company is geared specifically to towards Hebrew/Latin typesetting. They have an almost complete range of Hebrew faces but only a few Latin faces. They use a Varityper system which working from film masters does not allow digital italicising, expanding or condensing. The fact that they only have a few Latin faces seems to be a problem with most setting houses. There are over a thousand Latin typefaces in various styles and weights but, after choosing one for a job, whether any one has it is a different matter.

## 9. EXAMPLES OF SUITABLE LATIN/HEBREW TYPEFACES

The texts have been set running into each other for easier comparison

*Hebrew text samples are set 12/12 point*

*Latin text samples are set 11/12 point*

The Probation Committee does not belong to the County Council, but Councillors are appointed to represent the authority on this body. The Committee has statutory responsibilities and is funded by the County Council subject to grants received from the State. The Committee was set up in 1980, and its members are appointed by the County Council. The Committee is responsible for the supervision of probation officers and the management of probation services. The Committee is funded by the County Council and the State. The Committee is subject to grants received from the State.

*New Narkis 45 with Antique Olive light<sup>3</sup>*

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*Narkis medium with Souvenir medium*

<sup>1</sup> Linage Phototypesetting have a number of Hebrew faces in stock and will buy in any others. They use a Linotype-Paul digital system. 70 Fearnley Street, Watford, Herts.

<sup>2</sup> G J George Printers and multilingual phototypesetters. Topps House, St Andrews Mews, London N16 5HX.

<sup>3</sup> In this instance, due to the extra large Latin x height, 10/12pt Latin could be used. In the sample 11/12pt has been used, inkeeping with all the other samples.

The Probation Committee does not belong to the County Council, but Councillors are appointed to represent the authority on this body. The Committee has statutory responsibilities and is funded by the County Council subject to grants received from the Home Office, ranging from the

בליל שבת, שני במאי 1980, נרצחו בחברון שי מתפילה במערת המכפלה. רצח בית הדסה, לנ איזור יהודה ושומרון, תא"ל בנימין בן אליעזר נגד ראש עיריית חברון, פאהד דאוד קוואג חלחול, מוחמד מילחם ונגד האימאם של מ והשופט השרעי הראשי בחברון, רג'ב ביווד אי באישון לילה באו אנשי הצבא לבתייהם ונ

*Hadassa medium with Congress medium*

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בליל שבת, שני במאי 1980, נרצחו בחברון שחזרו מתפילה במערת המכפלה. רצח בי הוציא מפקד איזור יהודה ושומרון, תא"ל (פואד), צו גירוש נגד ראש עיריית חבו קוואסמה, ראש עיריית חלחול, מוחמד מילו של מסגד אל איברהמי והשופט השרעי הר: ביווד אל חטיב אל תמימי. באישון לילה

*David medium with Quorum medium*

**The Probation Committee does not belong to the County Council, but Councillors are appointed to represent the authority on this body. The Committee has statutory responsibilities and is funded by the County Council**

בליל שבת, שני במאי 1980, נרצחו בחברון ש מתפילה במערת המכפלה. רצח בית הדסה, למחה יהודה ושומרון, תא"ל בנימין בן אליעזר (פואד) עיריית חברון, פאהד דאוד קוואסמה, ראש עירי מילחם ונגד האימאם של מסגד אל איברהמי והנ בחברון, רג'ב ביווד אל חטיב אל תמימי. באישון ל לבתייהם ונטלו אותם. מפקד האיזור אמר להם, מנ

*Frank Rheul medium with Benguiat medium*

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בליל שבת, שני במאי 1980, נרצחו בחברון שחזרו מתפילה במערת המכפלה. רצח ביו הוציא מפקד איזור יהודה ושומרון, תא"ל ב (פואד), צו גירוש נגד ראש עיריית חבר קוואסמה, ראש עיריית חלחול, מוחמד מילח של מסגד אל איברהמי והשופט השרעי הראו ביווד אל חטיב אל תמימי. באישון לילה ב

*Miriam with News Gothic light*

abcdefghijklmnopq  
rstuvwxyz

*New Narkis 45 with Antique Olive light*

א ב ג ד ה ו ז ח ט י כ ל  
מ נ ס ע פ צ ק ר ש ת ך  
ץ ף ן ם

**abcdefghijklmnopq  
rstuvwxyz**

*Narkis medium with Souvenir medium.*

א ב ג ד ה ו ז ח ט י כ ל  
מ נ ס ע פ צ ק ר ש ת ך  
ץ ף ן ם

abcdefghijklmnopq  
rstuvwxyz

*Hadassa medium with Congress medium.*

א ב ג ד ה ו ז ח ט י כ ל  
מ נ ס ע פ צ ק ר ש ת ך  
ץ ף ן ם

abcdefghijklmnopq  
rstuvwxyz

*David medium with Quorum medium.*

א ב ג ד ה ו ז ח ט י כ ל  
מ נ ס ע פ צ ק ר ש ת ך  
ץ ף ן ם

**abcdefghijklmnop  
opqrstuvwxyz**

*Frank Rheul medium with Benguiat medium.*

א ב ג ד ה ו ז ח ט י כ ל מ  
נ ס ע פ צ ק ר ש ת ך ם ן  
ף ץ

abcdefghijklmnopq  
rstuvwxyz

*Miriam with News Gothic Light.*

א ב ג ד ה ו ז ח ט י כ  
ל מ נ ס ע פ צ ק ר ש  
ת ך ן ם ף ץ

**ABCDEFGHIJKLMNO  
PQRSTUVWXYZ**

*Chaim with Helvetica Bold (caps).*

**א ב ג ד ה ו ז ח ט י כ ל  
מ נ ס ע פ צ ק ר ש ת ך  
ץ ף ן ם**

## **APPENDIX B** Transcripts of relevant points made in discussions

1. Zvi Narkis.
2. Meir Doron (agent for Varityper International, Israel).
3. Eliahu Koren.
4. Elly Gross.
5. John Tomkins.
6. Yochanan Vardimon.

1. ZVI NARKIS. Typographer, Designer of the Narkis and New Narkis Typeface.

You should not try to imitate Latin typography in Hebrew characters. Both alphabets should be used without any compromises to aid the other alphabet. A difference which should be taken into account is the simplicity of the Hebrew characters compared to the Latin characters. This can be seen by taking a simple word such as 'Radio'.

## Radio, רדיו

When compared to the Hebrew word it is quite obvious how much more interesting the Latin letters are, even when using a plain monolinear sans-serif face.

The idea that the Hebrew characters should be heavier in the horizontal lines than the vertical is not historically true, old examples of Hebrew stone carvings show monolinear characters. So there is no reason why there should not be monolinear Hebrew faces except as in the Latin alphabet it is possible that the non-monolinear alphabets are more legible.

Hebrew characters should generally be matched in height to the Latin characters so that the body of the Hebrew is slightly higher than the Latin x height with which it is balanced.

When balancing Latin characters with Hebrew the thickness of the lines in the Hebrew characters should be slightly heavier than those in the Latin characters. This is due to the fact that when the two alphabets are balanced correctly in height, there are more lines, which are also more compact in the Latin alphabet. This being due to the characters being more complex. To balance out the weights, the lines in the Hebrew characters should be heavier than those in the Latin alphabet.

The white space between Hebrew which is set solid is due to the few ascending and descending characters.

Hebrew text (modern) is generally 20% shorter than its English equivalent. This difference can be as much as 50% when using Biblical Hebrew.

Generally, both Hebrew and Latin characters are designed based on a 10 by 12 grid.

If a large character is needed to denote the start of a section, the whole word should be enlarged in Hebrew, rather than just the initial letter.

When designing a Hebrew typeface, the fact that it will be mechanically italicised should be taken into account. This being due to the fact that there is not the demand in Hebrew to produce large families of faces. Hebrew italic should be slanted this way 'ֹ'. It should be compared to a man running - ones head always goes first.

When texts including both Hebrew and Latin, include numerals, it is a possibility to use just one set of numerals with both texts.

Old Style Numerals should not be used with Hebrew as they were designed to compliment the Latin lower case alphabet.

## 2. MEIR DORON (AGENT FOR VARITYPER INTERNATIONAL, ISRAEL)

There is no reason why a Latin serified alphabet should go specifically with a Hebrew face with a pen-mark. It is a mistake to compare the two types of mark.

Hebrew should be italicised this way ‘/’. There are many reasons for it being italicised in both directions, but it looks natural this way ‘/’.

When choosing or designing a similar Hebrew typeface to go with a Latin face, the designer should not try to match up the alphabets character for character. The two alphabets are completely different in form and should be matched with each other letter for letter, but on a more general basis.

Historically, Hebrew should align (word for word) at the top of the characters. Typesetting systems automatically align all characters at the bottom of their *body*. Hebrew is generally aligned at the bottom rather than the top, this is what the machines do and it causes less problems when it is to be combined with the Latin alphabet.

The letter ‘Samech’ in the typeface New Narkis is an angled circle, on other systems it is a full circle as in the Latin letter ‘O’. There is no reason why a Hebrew letter should resemble a Latin letter and if anything one should go out of ones way to make them different.

When using numerals in texts that contain both Hebrew and Latin characters it is a good idea to use just one face of numerals with both alphabets.

## 3. ELIAHU KOREN (KOREN PUBLISHING & TYPOGRAPHER)

אבגדהוזחטיכךלמסנסע  
פףצץקקרתשת(?!";:)\*.

The Koren letter is based on the *traditional* Hebrew letter which has been modified to increase legibility. At present the right to reproduce the Koren letter belongs only to Koren Publishing.

Non-monolinear Hebrew faces are more legible than monolinear faces.

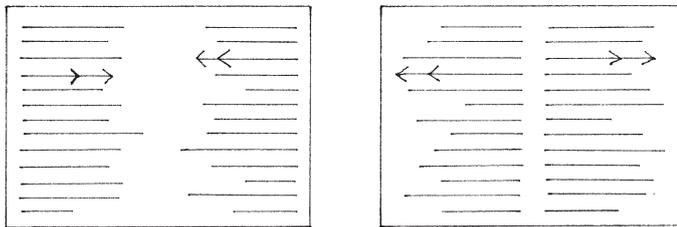
The use of the Latin face *Times* is not satisfactory for use along with the *traditional* Hebrew faces. It does not have enough weight behind it and the bold form of the letter is ugly.

The typeface *Times* was also designed for printing newspaper texts and not religious texts.

In smaller point sizes (10pt. and under) *Times* is the most suitable, legible face. In larger sizes *Korinna* is an appropriate face to use.

Old Style Numerals should not be used with Hebrew as they were designed to go with the Latin lower case alphabet, of which Hebrew has no equivalent.

When setting a text (Hebrew/English), which has its translation along side it, The Hebrew should be set to the left of the English. This way both languages start each line along side each other in the central gutter making it easier to cross reference. Also, if the texts are not set *justified*, it is visually better to have the ragged edges bleeding into the outer margins.



These points have been mentioned to the large American publishers, with reference to Hebrew books, but non are willing to take the risk of printing the Hebrew to the left of the English.

#### 4. ELLY GROSS (TYPOGRAPHER)

If one looks at old Hebrew manuscripts, there are examples of writing which slants both this way ‘/’ and ‘\’ this, more frequently it is this way ‘\’. There is no real reason for italic in Hebrew to slant one way or the other. Hebrew italic faces are needed, but mechanical italicising is bad.

The more legible part of the Hebrew letter, the part ones eye follows, is the top half.

There is nothing wrong with enlarging an initial letter rather than word in Hebrew (there are historical references). It is better if the character hangs from the line rather than standing one the ‘Latin base line’.

As in the Latin alphabet, non-monolinear faces are more legible than monolinear faces.

The horizontal strokes in the Hebrew alphabet are more important than the vertical.

## 5. JOHN TOMKINS FSTD FSIAD (DESIGNER)

A typographer should be able to work from using a selection of only four typefaces, so the limited number of Hebrew faces available should not be a problem.

Visually Hebrew characters will look smaller than Latin characters of the same point size.

As the Hebrew and Latin characters are so different, all that is needed to separate them in a line is, at most, a double word space.

Old Style Numerals should not be used with Hebrew characters as they were designed to go with the Latin Lower case alphabet. Wherever possible numerals should be written out in word form.

## 6. YOCHANAN VARDIMON (HEAD OF GRAPHICS, BEZALEL, JERUSALEM)

Theoretically Hebrew italic should slant this way ‘\’, but some characters do not look right when slanted in this direction.

Old Style Numerals are visually much more appropriate with Hebrew characters than Cap Height Numerals. An exception to this is if only Latin caps are being used.

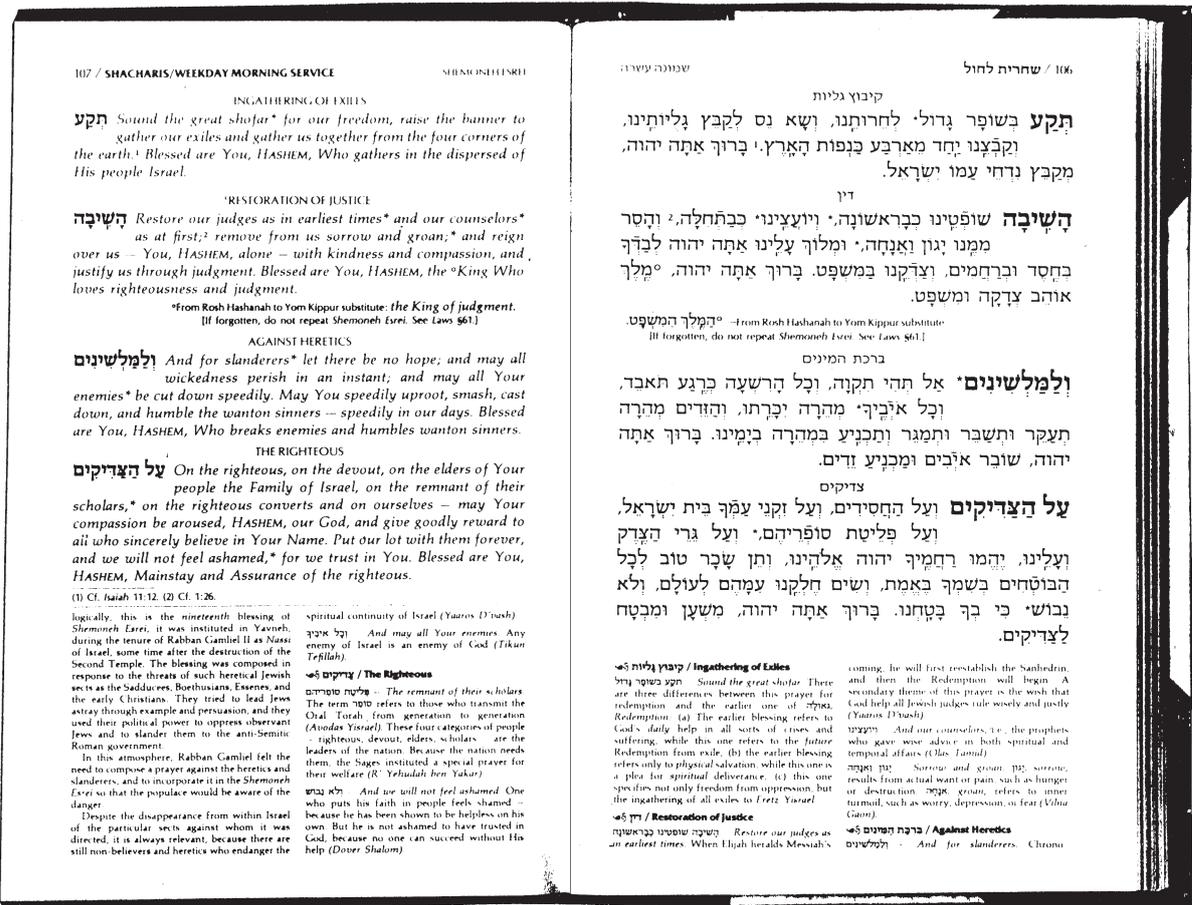
Although the Hebrew alphabet hangs off the line it is natural to relate to things that grow upwards rather than hang down.

## **APPENDIX C** Examples of relevant design work

1. Artscroll Prayer-book, Mesorah Publishing 1984.
2. Koren Haggadah, Koren Publishing 1984.
3. Poster Design (typographic detail), Dan Reisinger 1977.
4. Poster Design (typographic detail), Raphie Etgar 1982.
5. Logo (typography), Simon Prais 1985.

1. ARTSCROLL PRAYER-BOOK (MESORAH PUBLISHING 1984)

The Artscroll series of books are some of the better designed bilingual texts. The Prayer-book, as illustrated below, opens the Hebrew way. It is obvious that the designer was aware of the problems in setting the Hebrew to the right of the English. To overcome some of the problem, without reversing the format, the designer has repeated the first Hebrew word of each paragraph at the start of its English translation. This has a number of advantages. When flicking through the pages of the book, the natural way, the repeated Hebrew words on the left are visible, this telling the reader what Hebrew paragraphs are on the facing page. This is assuming that the reader generally recognises paragraphs by the Hebrew text and not the English. Similarly, when cross-referencing between the two languages, this layout is easier to follow. There still is the whole span of the book to cross, but there is the same Hebrew word repeated, rather than just its translation, which is much easier to find. Both the Hebrew on the left and English are in a smaller point size than the Hebrew on the right. There is proportionally more leading on the English side, this producing a visually well balanced double spread.



INGATHERING OF EXILES

**הקע** *Sound the great shofar\* for our freedom, raise the banner to gather our exiles and gather us together from the four corners of the earth. Blessed are You, HASHEM, Who gathers in the dispersed of His people Israel.*

\*RESTORATION OF JUSTICE

**השיבה** *Restore our judges as in earliest times\* and our counselors\* as at first;<sup>2</sup> remove from us sorrow and groan;\* and reign over us — You, HASHEM, alone — with kindness and compassion, and justify us through judgment. Blessed are You, HASHEM, the King Who loves righteousness and judgment.*

\*From Rosh Hashanah to Yom Kippur substitute: *the King of judgment.*  
If forgotten, do not repeat Shemoneh Esei. See Laws §61.

AGAINST HERETICS

**ולמלשינים** *And for slanderers\* let there be no hope; and may all wickedness perish in an instant; and may all Your enemies\* be cut down speedily. May You speedily uproot, smash, cast down, and humble the wanton sinners — speedily in our days. Blessed are You, HASHEM, Who breaks enemies and humbles wanton sinners.*

THE RIGHTEOUS

**על הצדיקים** *On the righteous, on the devout, on the elders of Your people the Family of Israel, on the remnant of their scholars,\* on the righteous converts and on ourselves — may Your compassion be aroused, HASHEM, our God, and give goodly reward to all who sincerely believe in Your Name. Put our lot with them forever, and we will not feel ashamed,\* for we trust in You. Blessed are You, HASHEM, Mainstay and Assurance of the righteous.*

(1) Cf. Isaiah 51:12. (2) Cf. 1:26.

logically, this is the nineteenth blessing of Shemoneh Esei, it was instituted in Yaasovh during the tenure of Rabban Gamliel II as Nasi of Israel, some time after the destruction of the Second Temple. The blessing was composed in response to the threats of such heretical Jewish sects as the Sadducees, Boethusians, Essenes, and the early Christians. They tried to lead Jews astray through example and persuasion, and they used their political power to oppress observant Jews and to slander them to the anti-Semitic Roman government.

In this atmosphere, Rabban Gamliel felt the need to compose a prayer against the heretics and slanderers, and to incorporate it in the Shemoneh Esei so that the populace would be aware of the danger.

Despite the disappearance from within Israel of the particular sects against whom it was directed, it is always relevant, because there are still non-believers and heretics who endanger the

spiritual continuity of Israel (Yaasovh D'vash). (כל איבך) *And may all Your enemies. Any enemy of Israel is an enemy of God (Tikun Tefillah).*

צדיקים / The Righteous

**על הצדיקים** - *The remnant of their scholars.* The term *צדיקים* refers to those who transmit the Oral Torah from generation to generation (Avoth Yaasovh). These four categories of people - righteous, devout, elders, scholars - are the leaders of the nation. Because the nation needs them, the Sages instituted a special prayer for their welfare (R. Yehudah ben Yehoi).

**ולא נבוש** - *And we will not feel ashamed.* One who puts his faith in people feels ashamed - because he has been shown to be helpless on his own. But he is not ashamed to have trusted in God, because no one can succeed without His help (Dover Shalom).

קבוץ גלויות

**תקע** בשופר גדול. לחרותנו, ושא נס לקבץ גליותינו, וקבצנו יחד מארבע כנפות הארץ. ברוך אתה יהוה, מקבץ נדחי עמו ישראל.

דין

**השיבה** שופטינו בכראשונה, ויועצינו בכתחלה, והסר ממנו יגון ואנחה, ומלוך עלינו אתה יהוה לבדך בחסד וברחמים, וצדקנו במשפט. ברוך אתה יהוה, מלך אוהב צדקה ומשפט.

From Rosh Hashanah to Yom Kippur substitute: *המלך המשפט.*  
If forgotten, do not repeat Shemoneh Esei. See Laws §61.

ברכת המינים

**ולמלשינים** אל תהי תקוה, וכל הרשעה כרגע תאבד, וכל איבקי מהרה יכרתו, והזדים מהרה תעקר ותשבר ותמגר ותתקיע במהרה בקימנו. ברוך אתה יהוה, שובר איבים ומכניע זדים.

צדיקים

**על הצדיקים** ועל החסידים, ועל זקני עמך בית ישראל, ועל פליטת סופריהם, ועל גרי הצדק ועלינו, יהמו רחמיק יהוה אלינו, ותן שכר טוב לכל הבוטחים בשמך באמת, ושים חלקנו עמך לעולם, ולא נבוש כי כך בטחנו. ברוך אתה יהוה, משען ומבטח לצדיקים.

קבוץ גלויות / Ingathering of Exiles

**תקע שופר גדול** There are three differences between this prayer for redemption and the earlier one of *תקעו*. (a) The earlier blessing refers to God's daily help in all sorts of crises and suffering, while this one refers to the future Redemption from exile; (b) the earlier blessing refers only to physical salvation while this one is a plea for spiritual deliverance; (c) this one specifies not only freedom from oppression but the ingathering of all exiles to Eretz Yisrael.

Restoration of Justice

**השיבה שופטינו בכראשונה** Restore our judges as in earliest times. When Elijah heralds Messiah's

coming, he will first reestablish the Sanhedrin, and then the Redemption will begin. A secondary theme of this prayer is the wish that God help all Jewish judges rule wisely and justly (Yaasovh D'vash).

**ויועצנו** And our counselors, i.e., the prophets who gave wise advice in both spiritual and temporal affairs (This Land).

**ורחמינו** Sorrow and groan may sorrow, results from actual want or pain, such as hunger or destruction; *אנחה*, groan, refers to inner turmoil, such as worry, depression or fear (Vilna Gaon).

ברכת המינים / Against Heretics

**ולמלשינים** - *And for slanderers.* Chrono-

2. KOREN HAGGADAH (KOREN PUBLISHING 1984)

The Koren Haggadah is one of the few books which opens the Hebrew way and is printed with the Hebrew text to the left of the English text. The main side, with the Hebrew, is slightly heavier in weight than the English and also includes illustrations. These points and the fact that it is the left hand side make the Hebrew the predominant language. It has a line for line translation with the two languages more or less aligned with each other. In larger publications the lines are correctly aligned. Due to the publication being only 11.5cm x 16.5cm, and the type being small, the typeface *Times* has been used, rather than *Korinna*, as in the larger publications. The small point size in the English and the excessive leading is due to the fact that it is a line for line translation. If the type was any larger the proportionally longer English translation would not fit on one line, this throwing out of line, the line for line translation.

The fact that the Hebrew is set to the left of the English means that the Hebrew is seen first at the turn of each page. Both languages start from the centre, this making it easier to cross reference. The text has been set ranged rather than justified, this makes it easier to follow and visually more interesting. If the pages had been printed with the Hebrew on the other side this would produce a strange white shape down the gutter where the ragged ends of text meet.

 <p>מנבִּיחַ אֶת הַמַּצּוֹת וְאוֹמֵר</p> <p><b>מַצָּה זֶה</b></p> <p>שֵׁאֲנֵנוּ אוֹכְלִים עַל שׁוֹם מָה</p> <p>עַל שׁוֹם שֶׁלֹּא הִסְפִּיק בְּצֵקֵם שֶׁל אֲבוֹתֵינוּ לְהַחְמִיץ עַד שֶׁנִּגְלָה עֲלֵיהֶם מֶלֶךְ מַלְכֵי הַמְּלָכִים הַקְּדוֹשׁ בְּרוּךְ הוּא וְגֵאֱלִים שֶׁנֶּאֱמַר</p> <p>וַיֹּאפּוּ אֶת־הַבֶּצֶק אֲשֶׁר הוֹצִיאוּ מִמִּצְרַיִם עֲגֹת מִצּוֹת כִּי לֹא חָמֵץ כִּי־גֵרִשוּ מִמִּצְרַיִם וְלֹא יָכְלוּ לְהִתְמַהֵמֵה וְגַם־עֲדָה לֹא־עָשׂוּ לָהֶם</p>	<p>The Mazza is now shown round:</p> <p><b>MAZZA</b> which we eat, What is the reason for that? It is because the dough which our fathers prepared did not manage to ferment before the supreme King of Kings, revealed Himself to them, the Holy One (blessed is He) and redeemed them, as it is said, in Scripture, 'And they baked the dough which they brought out from Mizrayim into unleavened cakes, because it was not fermented: because they were driven out of Mizrayim, and they could not delay, nor had they prepared for themselves any provision.' (Shemot. 12:39)</p>
 <p>מנבִּיחַ אֶת הַמָּרוֹר וְאוֹמֵר</p> <p><b>מָרוֹר זֶה</b></p> <p>שֵׁאֲנֵנוּ אוֹכְלִים עַל שׁוֹם מָה</p> <p>עַל שׁוֹם שֶׁמָּרוֹרוּ הַמִּצְרַיִם אֶת חַיֵּי אֲבוֹתֵינוּ בַּמִּצְרַיִם שֶׁנֶּאֱמַר</p> <p>וַיִּמְרְרוּ אֶת־חַיֵּיהֶם בְּעִבְדָּה קָשָׁה בְּחֵמַר וּבְלִבְנֵים וּבְכָל־עֲבָדָה בַּשָּׂדֶה אֶת כָּל־עֲבַדְתָּם אֲשֶׁר־עָבְדוּ בָהֶם בְּפֶרֶךְ</p>	<p>The bitter herb is now shown round:</p> <p><b>MAROR</b> which we eat, What is the reason for that? It is because the Mizrians embittered the lives of our forefathers in Mizrayim, as it is said in Scripture, 'And they made their lives bitter with hard bondage, in mortar and in brick, and in all manner of bondage in the field: all their bondage wherein they made them serve was with rigor.' (Shemot. 1:14)</p>

### 3. POSTER DESIGN (TYPOGRAPHIC DETAIL) DAN REISINGER 1977

Detail from a poster advertising an exhibition of the designers work. It states, the name of the exhibition, the venue and the dates, in both Hebrew and English. Capital Latin letters have been matched in height with the body height of the Hebrew. The use of caps in the English exaggerates the difference in length between the two languages. This difference in lengths has then been made-up by enlarging the name of the exhibition, in Hebrew only, which is also the designers name. As well as equaling the line lengths this also gives the poster a title which is a bold heading. The impact of this title would have been lost if it had been repeated, in the same weight, in the second language. This as well as the fact that the other Hebrew text is heavier than the English makes the Hebrew the main language.



### 4. POSTER DESIGN (TYPOGRAPHIC DETAIL) RAPHIE ETGAR 1982

In this poster, advertising an exhibition of the artists work, Latin caps have been matched with the Hebrew face 'Chaim'. The main language is obviously Hebrew, the address of the exhibition is not given in English, but enough information is given to interest the English speaking audience into finding out more. The Dates and times (numerical), have been placed between the two languages. They both read with either language and act as a divider between them. Where the two alphabets are not seperated by numerals a double word-space has been used. In this situation the Latin characters are heavier than the Hebrew characters, this making them stand out from the Hebrew of which there is more and is the main language.

**חיים בתיאטרון רפי אתגר-כרזות**  
**LIFE IN THEATER 20.1.82-28.2.82 ירושלים**  
**17.00 - 19.00 ה - א ימים בתיאטרון POSTERS**

תיאטרון ירושלים · אמנות לעם · מדור לאמנות פלסטית · המדור לתיאטרון · כ"ה טבת - ד' אדר תשמ"ב

## 5. LOGO (TYPOGRAPHY) SIMON PRAIS 1985

This logo makes use of the fact that it is advantageous rather than disadvantageous to set Hebrew and Latin characters together in a circle. The visual base of the two alphabets form a strong circle around the outside of the shape. The two languages are both right reading at the same time, both starting from their appropriate sides. The typefaces used are 'Albertus' with 'Narkis'. The weight of the Hebrew characters are slightly heavier than the Latin characters, this forming an almost equally weighted circle. The extra weight in the Hebrew making up for both the simplicity of the characters and the shortness of the word. As with any typography, some character sequences can be impossible to letter-space correctly, especially when set in a circle. The large space between the letters 'T' and 'Y' has been filled with the insertion of the designers mark, this being the Hebrew letter 'Pe', reversed out of a circle. By placing the English word on top, this only makes the situation worse, producing large spaces between both the 'RA' and the 'AP'. These spaces would also fall at the top of the circle which is not the most subtle of positions.



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