

Mastering Hebrew Calligraphy



Handwritten text in a cursive script, possibly a signature or decorative flourish, rendered in a light gray color.

Mastering Hebrew Calligraphy

Izzy Pludwinski



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Mastering Hebrew Calligraphy
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DISCLAIMER

Although this book is entitled *Mastering Hebrew Calligraphy*, it is doubtful whether book study alone can accomplish this. Mastering an art, any art, requires both passionate engagement on the one hand and a commitment to hard work and practice on the other. It is my intention that, at the very least, this book will present you with sound fundamentals and useful techniques. But I also hope it will inspire you and open your eyes to see things differently. In so doing you not only learn an art but are also changed by it. Consider then this book an invitation to begin an open-ended process, a journey that never really ends, for the goals keep on changing.

Over the past 30 years, Hebrew calligraphy has taken me many places—geographically, artistically and spiritually; yet there is still so much more to learn and experience. I know I still have a long way to go yet I am enjoying every moment of it. I hope that you, too, will find yourself on a path that leads you to grow in unexpected ways. Welcome to the journey.



Frank Lalou. *Creation*, 2010

Introduction

THE HEBREW ALEPH-BET is a fascinating world unto itself. In mystic lore the letters are no less than the potential energy, the building blocks, from which the world was created. In Midrashic texts the letters each have personalities of their own. In Rabbinic legal texts there are dozens of laws connected with the proper way to write each letter. In Judaism the commandment to write a Torah scroll is incumbent on all Jews—so to some extent, we are all enjoined to become Hebrew calligraphers!

But why calligraphy? In our modern, digital age, it is legitimate to ask “Why bother writing letters by hand at all, when one can use the computer to ‘write’ with an almost infinite variety of fonts?” To the uninitiated, calligraphy can appear to be nothing more than a quaint, outdated hobby. In response to this I offer a few thoughts.

First, on the level of experience. As a craft, there is a simple, primal pleasure to be had in the act of making something with one's own hands, using materials—things of the material world, tangible materials, that arouse the senses. The smell of the ink, the look and feel of velvety parchment or a beautiful handmade paper, the sound of the pen swooshing in a flourish. All this is absent in the sterile world of the computer monitor and mouse. To create something unique (and what can be more unique than one's own hand-writing?), something that bears the stamp of one's own personality, something that cannot be exactly duplicated by anyone else on earth (including our own selves!) is an experience of everlasting value, especially in our digital, everything-is-replicable, age.

But it is not only a matter of the calligrapher's subjective experience. Hand-created letters are alive. They are the tangible result of a process that involves the human mind, body and spirit. The energy of this involvement, this excitement, is transferred to and embodied in the letters through the creative act, enlivening them. It is the encounter with the life-force of the letters that allows a beautiful piece of calligraphy to touch and move the viewer on a deep, human level in a way that fixed-font letters can never hope to attain.

On an entirely different level, type and digital fonts have freed calligraphers from their original role of being passive servants to the text, when the concern for legibility was the supreme factor and the calligrapher's own personality was to be transparent. Calligraphy today is an exciting art form as well as a craft. The relationship of calligrapher to text is much less obvious than in the past. Lettering art can have many different purposes and the modern calligrapher/artist can use letters in forms that range from the formal and clearly legible to the wildly expressive and abstract. The sky has become the limit for the calligrapher.

But whether conservative or radical, to be effective one must have a strong grounding in the principles that make for good calligraphy. What I hope to accomplish in this book is more than just to present good scripts and how to write them. I would like to present sound fundamentals so that students will be able to work with any script, whether found in this book, in historical manuscripts or in their imagination, and write them effectively.

There is no real word in Hebrew for calligraphy. The term traditionally used for good writing is *k'tivah tamah*, which could be translated as “simple writing”, or pure writing. I like the wholesomeness of that term. We do not have to be fancy. Good and simple are what we strive for—beauty will then happen on its own.

The letter *yud* with its *oketz*.Stan Brod. *Tov*, 1982

Hebrew Calligraphy and Jewish Tradition

Calligraphy is an authentic Jewish art and craft. The Jewish connection to the word and the art of the written word can be traced back to the very beginnings of Judaism. According to one interpretation of a famous *midrash*, the letters in the Torah received crowns because at Sinai, God handed over his royal authority to the letters. Since then, understanding those letters, studying those words and grappling with those texts has become paramount to spiritual development.

But surprisingly, along with the call to study was a second call—to actually write the texts. The Torah scroll, as well as many other Jewish ritual objects, such as *mezuzot*, *t'filin* and *megillot*, must all be hand written. Perhaps the Rabbis understood that writing the letters by hand, or even deciding how to write the letters, fosters a deep relationship with the words—it becomes a way to embody the text.

In the Jewish tradition it is not only the content that has meaning, but also the forms that embody the words—the shapes of the Hebrew letters. There is an entire mystical tradition attaching holy meanings to every detail of every letter of the *aleph-bet*. (In fact, it was precisely this that drew me to the Hebrew letters to begin with. I was in a synagogue and saw a poster which had an enlarged image of the letter *yud*, with a statement warning that if an entire Torah scroll was written perfectly correct but one *yud* was missing an *oketz*—the thorn-like protrusion jutting from the lower left corner—the entire Torah scroll would be deemed invalid. “What powerful, mystical secrets lie within that *oketz*?” I wondered. This led me to study to be a *Sofer STaM*.)

It is not only the sacred letters that have played a role in the Hebrew calligraphic tradition. Artists have been playing with the forms of Hebrew letters for centuries—from 9th century micrography, through the beautifully flourished letters found in medieval illuminated manuscripts, to the freer forms found in the works of artists such as Ben Shahn and Leonard Baskin, through to today's modern calligraphers.

This tradition of seeking relevant forms falls, in my opinion, under the category of *biddur mitzvah*—glorifying, making beautiful, a sacred object. To make something deeply beautiful means to make it deeply relevant. As the world continues to evolve, so too must our creative expression of what matters to us; this is the only way to communicate effectively. Rebbe Nachman of Breslov expressed it succinctly: האדם חייב להתחדש תמיד—Man must renew himself constantly.

It is my hope that this book will help to serve as a connection to this written past and provide some tools and inspiration to use this connection to branch out and find ever-new relevant ways to communicate what is meaningful to us, and thus touch the hearts and souls of others, as well as our own.

Putting the Scripts into Historical Perspective

The scripts in this book have their roots in what is paleographically termed the “Hebrew Square Script”, or Jewish Script—a script that began to take form around 300 B.C.E. when it began to usurp what is known as the “Ancient Hebrew Script”. The Dead Sea scrolls, found at Qumran, are our oldest full texts in this script, and in a later chapter we will be taking a closer look at them.

אֵלֶּיךָ יְיָ אֱלֹהֵינוּ וְלֹא לְאִשָּׁנָה

Ancient Hebrew script

ולבישולך ביום עם שנת פעהתם שובעתה

Hebrew Square script from Qumran, 1st century BCE

Over the years, this square script took on local features characterized by the country in which the scribe was from. The scripts have traditionally been divided into Sephardic and Ashkenazic scripts, but each script has many variations. The beauty of many of these scripts reached their zenith in the Middle Ages.

מפצרים שיש והנרת לנך כיום ההוא לאגור בעבוד

Medieval Square Sephardic script, 14th century

העבודה הוזהקה והעל שועתם

Medieval Square Ashkenazic script, 15th century

In addition to the formal square script, a more informal, semi-cursive script (Hebrew does not have a true cursive*) was also used. These were faster to write and in some cases their shapes are much rounder. These scripts vary widely depending on their country of origin and can provide much inspiration for calligraphers looking to develop newer forms for their calligraphy.

מחשבותי: להבין מה ושהי המלכה לפני הסוף בבהר מולכה
השירים מה יפיה כי טובה מרחה היות והמבולך המלכה רשעה

Semi-cursive script. Italy, 15th century

ויגלו עקב עולמו שדן חכב ענתוקה צונקו עשני מנתיפס פלומי סזניני רחוק נכתיב ונקד עשנה יתין
ע עקב ותיבון מין תכר חלל יתעל תצוקתני בלתיח אצנה למקניקתני רהנה קיתמהור תמהות עש

semi-cursive script. Spain, 15th century

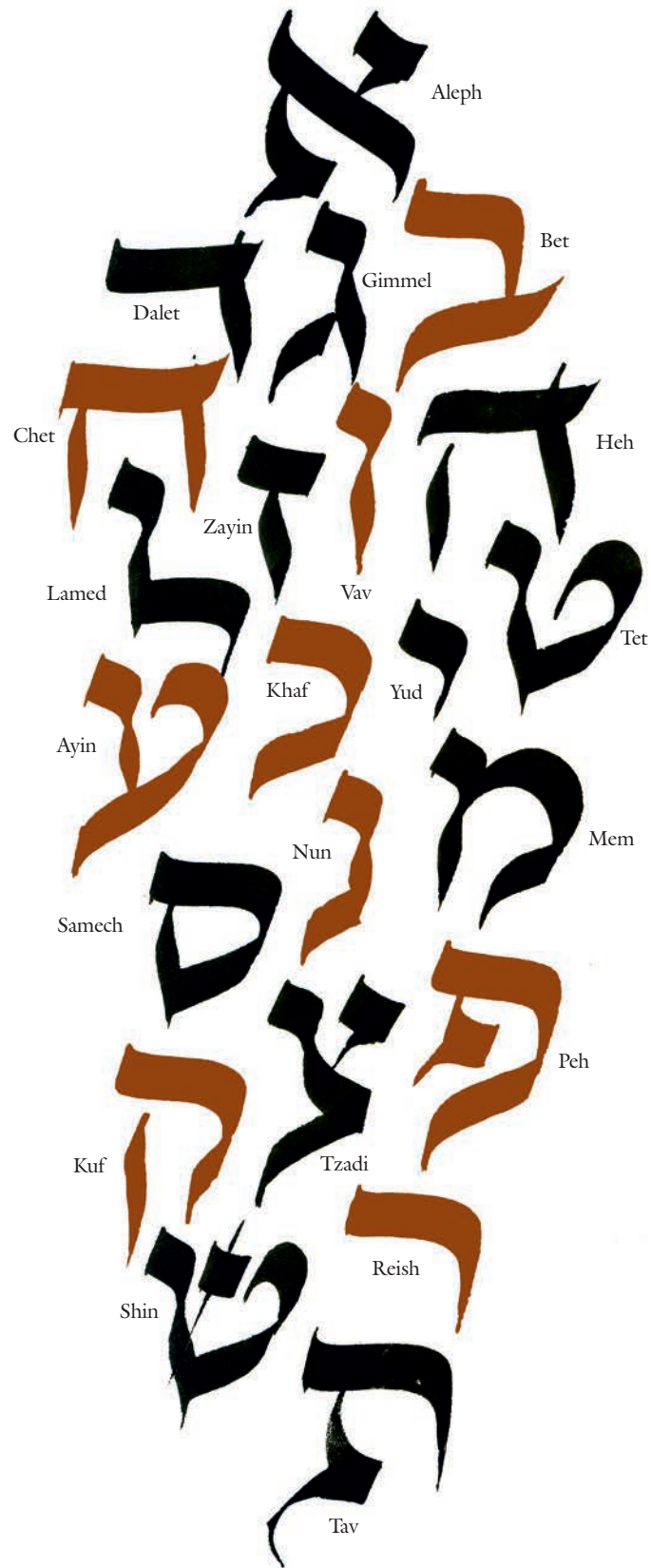
In the German semi-cursive script below one can see many of the roots of modern Hebrew handwriting.

חאלו החאחינים במורים יאו ספ לעולו הכ תאויס הם ענינים
על עזם היל וינים עזחו. וקנת חילוו הויליס אוחויס ספיהם

Semi-cursive script. Germany, 15th century

אין קורבט טלגן זייל פוסטסון חזון חזון פריהאטע לוח
אין פריהאטע לוח חזון חזון פריהאטע לוח

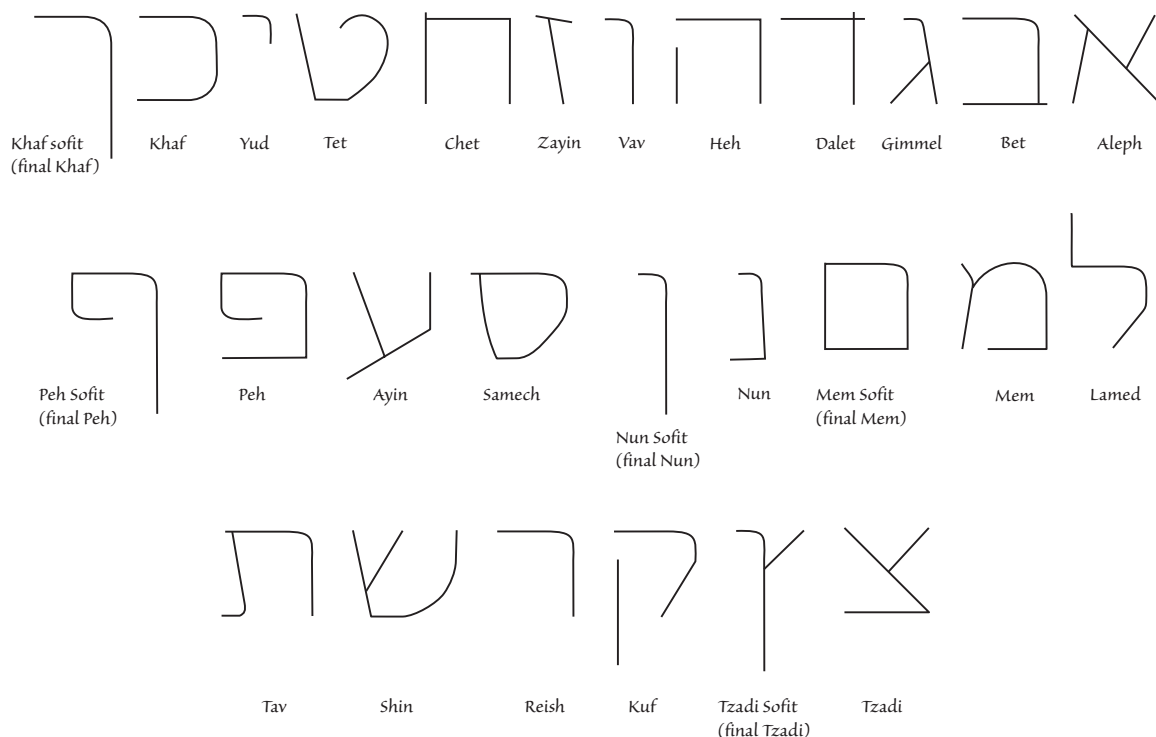
Sample of 20th century (the author's father's) Hebrew handwriting, in the Yiddish language.



The 22 letters of the Hebrew *Aleph-bet* (medial forms)

Chapter 1

A Hebrew Skeletal Aleph-bet

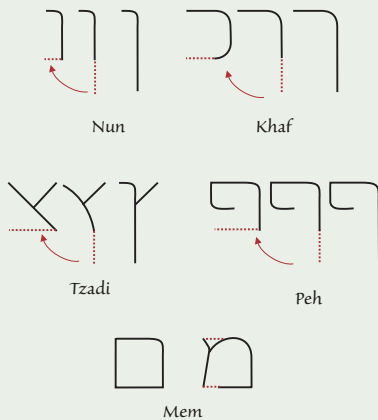


BEFORE BEGINNING to write with a pen, it is important to have a good understanding of the essential characteristics of each of the letters—their shape and proportions. No less important will be learning to put the letters together to form words and lines of writing. These are the “bones” of all good calligraphy. The skill of writing with a broad-edged pen discussed later in the book is the meat that is added on. But it is the bones, the skeleton, that underlies and determines the quality of all our work and this is what will be addressed first. This chapter is meant to be a “skill-free” introduction, meaning you won’t need to write with a broad-edged pen. The suggested exercises at the end of the chapter only ask you to write the letters and words with a pencil or monoline pen. It is mostly about understanding the letters.

There are 22 letters in the Hebrew *aleph-bet*. Five of those letters have a different form when they appear at the end of a word, making for a total of 27 different characters. (See the illustration on the following page for how medial and final forms are related). Each letter of the Hebrew *aleph-bet* can be written

Relation between the five regular (medial) forms and final forms.

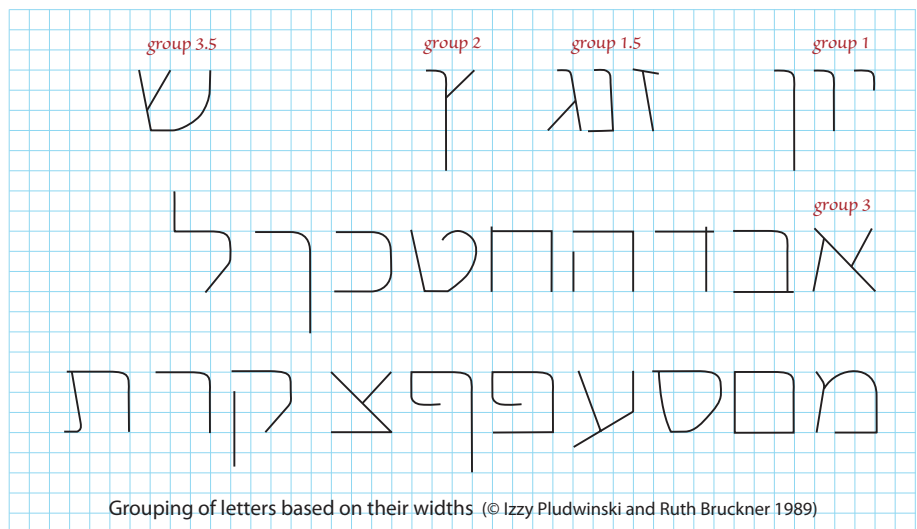
In Rabbinic tradition four of the five regular forms (except for *mem*) are referred to as “bent” (*kḥufah*) forms, whereas the final forms are called “simple” or “straight” forms (*pshtutah*). If you take the final form of *khaf*, *nun*, *peh* or *tzadi* and “bend” the descending stroke to the left, you get the medial form. Paleographers maintain that this represents a cursive quality as the stroke was “bent” in order to lead the pen into the next letter. The medial form for *mem* is called *mem pshutah* (open form) and the final form is *mem stumah*, closed form, for obvious reasons.



in an almost infinite variety of ways. However, for a letter-form to be successful, it must retain a certain skeletal shape that in a sense defines the letter, giving it its unique personality. It is important to understand what the fundamental components of each letter are. And though it is true that letter designers often question and play with these boundaries, one must understand what the rules are before one can even think of challenging them.

Grouping the Letters

Historically, there is no system for fitting Hebrew letters neatly into a rigid geometric grid. Letters were written freely, hanging from a single, top guideline. It is tempting to present the letters in such a free manner, but instead I have chosen to organize the letters into groups. They are written over graph paper so you can easily understand how wide each letter is supposed to be and the relation between the different elements of each letter. The body height of the letters in this *aleph-bet* is 3 boxes tall and the group's number refers to the width of the letter—the letters in group 1 are one box wide, 2 will be 2 boxes wide, 2.5 will be 2½, etc. Note that by far the largest group is group 3, meaning that most letters fit roughly into a square 3 boxes tall by 3 boxes wide. (Indeed, this script is based on forms that are termed by paleographers as the Hebrew Square Script). Having said that, even within this group there are small but important deviations, which are described in the letter by letter notes which begin on page 10. There you will find a description of each letter's essential characteristics. *Please read these carefully*, as many letters might appear to have the same shape but differ only in their proportions. Understanding this is most essential.



After you have had a good look at the above *aleph-bet* and have read and understood the material in the notes, try the suggested exercise. It might appear tedious but I believe it to be very important and useful, even if you are already familiar with the *aleph-bet*.

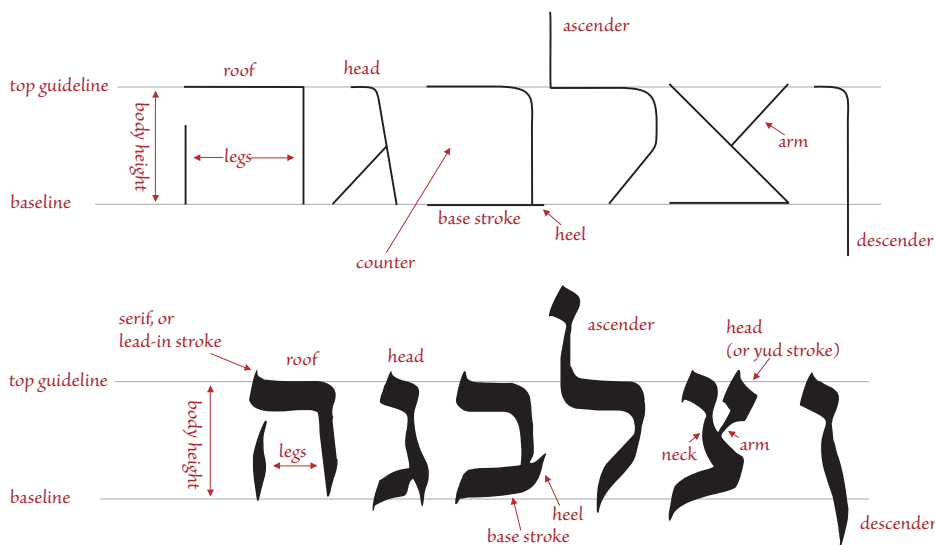
Please note that Hebrew is written and read from right to left, though the individual strokes within each letter are written from left to right.

EXERCISE 1: WRITING THE SKELETAL ALEPH-BET. Materials: graph paper, 2H or H pencil, HB pencil or any black, fine-pointed marker, ruler

Take out a sheet of graph paper. Rule penciled guide lines 3 boxes high with your 2H pencil. Using an HB pencil or a fine pen or marker, copy each of the letters exactly as they appear above. Make sure your lines are straight and the proportions are exact. One and a half boxes means $1\frac{1}{2}$ boxes and not $1\frac{3}{4}$ boxes. Calligraphy at this stage requires exactness, and accuracy is crucial. Until you are familiar with the limits of each letter, even small, apparently unimportant deviations might cause one letter to be confused with another. This is especially true in Hebrew, where many letters appear to have the same shape but differ only in the proportions of the stroke lengths within the letter, for example, *reish* and *vav* (see "Notes on Letters" section starting on the following page).

After you have succeeded writing the letters accurately on graph paper, try repeating the exercise on plain white paper. Rule guidelines $1\frac{1}{2}$ cm. or $\frac{3}{4}$ inch tall and aim to reproduce the letters as accurately as possible.

* *Terms Used to Describe the Hebrew Letters*



Body height: The height between the horizontal roof stroke and the baseline (which generally corresponds to the bottom of the leg stroke, in a letter that is not a descender).

Roof: The wide, top stroke of the letter. Can be horizontal or sloped.

Head: When the top stroke is narrow it is called the head.

Arm: A short stroke that connects the head with another stroke.

Leg: A stroke descending from the head or roof, often reaching down to the baseline.

Ascender: A letter that ascends significantly above the top guideline.

Descender: A letter that descends significantly below the baseline.

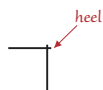
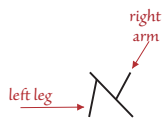
Serif: A lead-in or finishing stroke appearing at the beginning or end of a main stroke. For our purposes it will mainly refer to a lead-in stroke.

Counter: The white space inside the letter.

* The terms used here are descriptive rather than technical. Many of the terms are borrowed from the Rabbinic literature describing the laws of the sacred letters of the STaM script (the script used, for example, in the writing of a Torah scroll).

Notes on the Letters of the Skeletal Aleph-bet

It is essential for the calligrapher to have a thorough understanding of the shapes and proportions of each letter of the *aleph-bet*. Each letter, no matter whether it is part of a formal, informal or even abstract script, deserves the dignity of having its own identity, not to be confused with another letter. These notes refer specifically to this particular skeletal *aleph-bet*, though most of the comments are applicable to other scripts as well.



ALEPH: Its unique feature is the diagonal. There is great variation where the “arm” and “leg” meet the diagonal but the spot where the left leg hits the diagonal must be above where the right arm meets the diagonal. Care must be given to the balance of this letter. In general, the letter appears more stable when the upper triangle (formed by the diagonal and arm) is smaller in area than the lower triangle (formed by the leg and diagonal).

BET: The key characteristic is the “heel” on the bottom right, jutting past the vertical stroke. It must be clear, otherwise the letter will be confused with *khaf*.

GIMMEL: This letter must be clearly distinguishable from *nun*, so be sure to leave enough white space at bottom of letter, where the bottom leg joins with the vertical stroke. *Gimmel* should be wide enough to accommodate the left leg which should jut out just a bit from the head. Still it is a narrow letter. Care must be taken to balance the elements so the letter is upright and not leaning either forwards or backwards.

DALET: Care must be taken in order to differentiate *dalet* from *reish* which it greatly resembles. Therefore it ought to have a clear “heel” on the upper right corner, jutting past the join with the vertical leg. In this script the vertical also rises slightly above the guideline to help in clarity. The leg should not be placed too much towards the center of the letter; otherwise it may resemble a *zayin*.

HEH: One of two letters in the *aleph-bet* that are made up of two disconnected strokes (the other is *kuf*). There should be ample space between the left leg and roof to clearly differentiate from *chet*, yet have enough presence so it appears as a strong parallel to the right leg. Top right corner is sometimes curved rather than angular.

VAV: Must be narrow—too wide and it will resemble a *reish*.

ZAYIN: Care must be taken that *zayin* is not confused with *vav*. The leg should join the head either at the head's center or to the left of center. The head can be straight or sloped.

CHET: Same as *heh* but left leg is connected. Note that it is a full square's width.

TET: The right head can be a circular stroke, as it is in this script, or be made more horizontal. Either way, it should join smoothly with the base stroke.

YUD: Must be both short (between a third and half-way down) and narrow. Too long and it resembles a *vav*. Its width usually equals its height.



KHAF: Its important characteristic is its roundness—both at top right and bottom right, in order to differentiate it clearly from *bet*. Its width is the same as the counter of *bet*, thus it is slightly narrower than a full square. The left edges of its top and bottom horizontals should align.



KHAF SOFIT: Same shape as *khaf* but the vertical goes straight down two squares below the baseline instead of curving to the left. (Except for *mem*, the only difference between the final and regular forms of a letter is that the final form has a straight leg while the regular form has a “bent”, turned-in stroke).



LAMED: The only ascender in the Hebrew *aleph-bet*—should be at least two boxes higher than a regular letter but can be more. (See Dead Sea Scroll *lamed*!) In most *aleph-bets* the shape of the bottom of *lamed* relates to that of *kuf*.



MEM: In Rabbinic literature this letter is described as a *vav* attached to a *khaf*. In this *aleph-bet* however, the leg of *vav* is sloped, and the right side is a symmetrical arch.



MEM SOFIT: Make sure the bottom left is angular. This is important as in many formal scripts final *mem* can be easily confused with *samech*.



NUN: Think “narrow” in order that it should not resemble a *khaf*. The bottom leg juts out just a bit past the beginning stroke of the roof, otherwise the letter leans forward. If it juts out too much, you will have trouble spacing the next letter.



NUN SOFIT: A descender, two boxes below bottom guide line. In this script it has the same basic shape as an elongated *vav* (in other scripts it sometimes has the shape of an elongated *zayin*).



SAMECH: Note the similarity between the bottom strokes of *tet*, *samech* and *shin*. They all consist of a slanting vertical on the left, a short horizontal on the bottom and a sloping upwards stroke on the right. Think “curve” at the bottom left, to clearly differentiate it from *mem sofit*.



AYIN: Left “leg” touches near to the mid point of base stroke. If too close to the right then it could appear as *tzadi*. If too close to the left edge of base it could appear as *tet*. Note the bottom stroke dips below the baseline.



PEH: A *khaf* with an upside-down *yud*. When this letter is written with a broad-edged pen, there is often not enough room to squeeze in the upside down *yud* and so the bottom horizontal stroke needs to be placed below the base line.



PEH SOFIT: A descender, its shape is that of *khaf sofit* with an upside-down *yud* down the left side of the roof. Do not come down too low with the *yud* part.





TZADI: When writing *tzadi* with a broad-edged pen, the diagonal can often present a problem as it can cause a “dark spot” within the letter. But here, in skeletal form, the letter is pretty straightforward. Do not allow the right arm to hit too low lest the letter resemble an *ayin*.



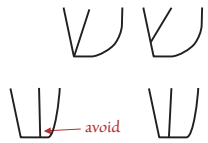
TZADI SOFIT: A *nun sofit* with an attached arm.



KUF: In most scripts, the leg is separated from the roof, but in some they are connected (see *Yerushalmi* script). In either case it should be clear which one you are doing, i.e. don't put it too close if you intend to have them separate.



REISH: Make sure there is a nice curve at the top right in order that it should not be confused with *dalet*. In order to compensate for the very large open counter within the letter, which would allow in too much white space, this letter should be made narrower than a full square. Of course it should never be so narrow as to be confused with *vav*.



SHIN: The widest letter—in order to incorporate the inner arm. Related to shape of *tet*. In different scripts the middle arm can join either to the left arm as in this *aleph-bet*, or to the point where the left arm hits the base, or even directly to the base. It should not however hit the base to the right of the base's center.



TAV: Think of it as a *reish* (a full three boxes wide, though) with a *nun* shape attached to its end. The bottom leg should not jut out more than a bit (if at all) past the left edge of the roof as it will be difficult to space the next letter properly.

Designing with a Monoline Pen

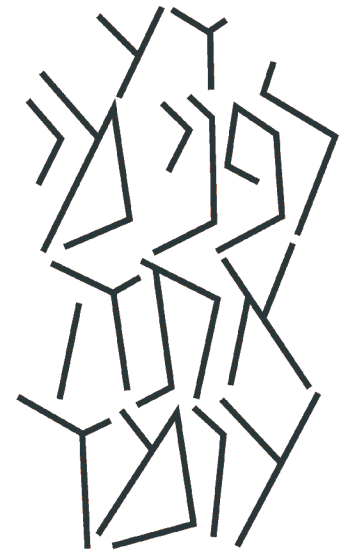
Even before we begin working with the broad-edged pen it should be noted that interesting designs can be created using just a monoline pen, such as a simple felt tip pen. Below is the work of Lynn Broide, in a playful piece using both square and semi-cursive forms in an improvisational manner. On the following page are other works utilizing monoline letter forms.



Lynn Broide. Detail from *Aishet Chayil*, incorporating freely written monoline forms



Barbara Wolff. *Wheat*. Incorporating simple monoline gilded letters



Cover design for *The Koren Siddur*, designed by Ada Yardeni

Going Too Far?

Below are some examples where the designer has tested (ignored?) the boundaries of the integrity of the letter in order to, in my opinion, force originality. In the example on the left, the basic structure of the *aleph*—having the right arm hit the body of the letter at a point above where the left leg hits the letter—has been undermined. A similar example (center) is found in the present corporate identity of the Egged bus company. The letter *aleph* has been distorted into an X, completely ignoring the integrity of its basic skeletal structure. In the examples to the right, there is ambiguity in the *mem* (or is it *peh*?) shape which might confuse the reader.



The "H" shape is supposed to be an *aleph*



Egged logo. The X shape is supposed to be an *aleph*



m'shoch, or p'shoch?

Chapter 2

Spacing & Rhythm



Fred Pauker, *Each man has a name*, 1984

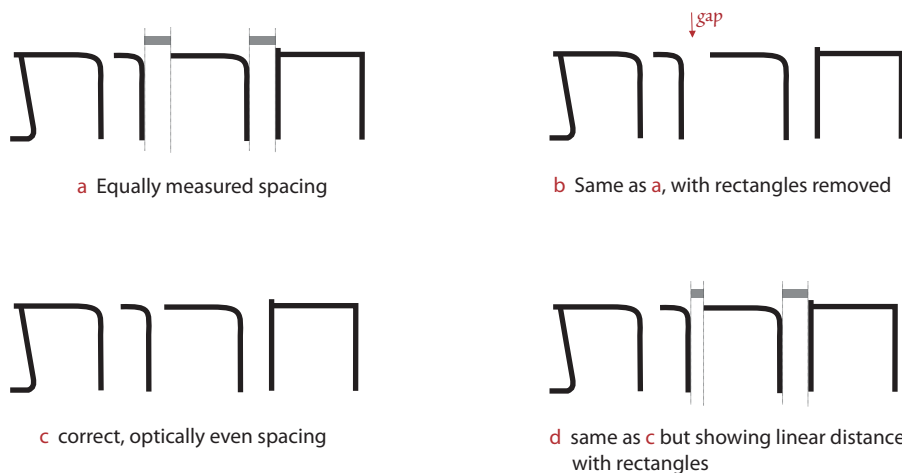
CALLIGRAPHY MEANS beautiful writing. Beautiful writing means more than just beautiful letters. Often, too much emphasis is placed on writing the (so called) “perfect” letter and too little on what to do with all those letters. That means taking into account how the word is spaced—how letters are put together to form a word, how words are put together to make up a line, and no less important, how the lines are put together to form a text block. I would even venture to say that poor letter forms that are consistently spaced will look better than nice letter forms used with bad spacing. The eye of the viewer, trained or untrained, first notices pattern or rhythm. Only afterwards will the viewer go deeper and look at the letters themselves and analyze their worth. If the pattern is not a pleasing one, if the spacing or build-up of the text block is poor, then the viewer will have little incentive to be drawn into looking at how beautiful your letters might be.

But the issue isn't only one of esthetics. Good spacing aids the viewer to read efficiently, helping the eye travel in a definite direction without ambiguity. If letter spacing is not consistent it causes, even if only for a fraction of a second, a hesitation and questioning—does this gap indicate a jump to a new word? If proper line spacing is not used, the reader might need to hesitate before determining where the next line begins. An even rhythm makes for a more pleasurable and efficient reading experience. In this chapter we will analyze the ingredients that make for good letter and word spacing. Line spacing will be taken up in a later chapter.

Letter Spacing

How much space does one leave between letters? Unfortunately, there is no one answer to this question. We want our letters to look evenly spaced, to have an even “color” throughout the word and line, an even rhythm of black and white. This occurs when the total area of white space between letters appears equal. Measured spacing, i.e. measuring equal linear distances between the edges of the letters, will paradoxically give us uneven looking spacing. This is because of the different shapes of the letters; some of the letters are “open” such as *reish*, and the eye takes in some of this space within the letter (the space within a letter is called a “counter”) in addition to the measured space between the edges of the letter. Some letters, such as *chet*, are closed and block off the inner white space within the letter. So, for example, a letter following a *reish* would have to be placed closer than the same letter placed after a *chet*.

Take a look at the spacings of the word *cherut* (*freedom*) below. See how equal measured spacing gives uneven and awkward results. In (a) the measured distance between the *chet* and *reish* and between *reish* and *vav* is the same (the gray rectangles are of equal length). However, *visually* the *reish* looks closer to the *chet* than to the *vav*; there is a gap within the word—see (b). This has been corrected in (c). The measured distance between *chet* and *reish* in (d) is more than the measured distance between *reish* and *vav* but optically the spacing looks even. This is because the eye takes in some of the white space of the open counter within *reish*. Our aim is for even, optical spacing and this can only be done by eye.



A good general principle to follow is:

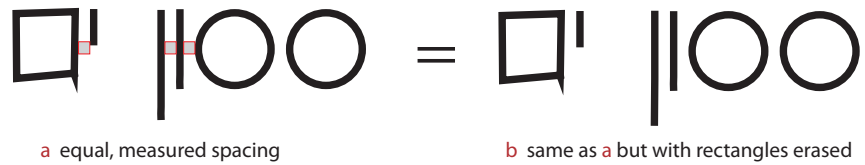
1. Leave the most distance between two upright strokes.
2. Leave relatively closer space between an upright and a curved (or diagonal) stroke.
3. Leave even closer space between two curved strokes.

Using an invented, purely geometric Hebrew *aleph-bet* based on curves and lines, we can see all three points illustrated in the Hebrew words *susson yam* (seahorse), shown here with *nikkud**:



*As will be discussed in more detail in Chapter 15, Hebrew does not usually use letters as vowels. In certain cases pronunciation is facilitated by the addition of vocalization marks called *nikkud*.

To demonstrate clearly these spacing principles, look at the words below, this time without the *nikkud*:



The measured spacing in (a) (all the gray rectangles are the same width) gives you (b). See how that paradoxically gives you a look of unequal spacing. The two vertical letters at the end of the first word look too close to each other, creating a darker “color” at the end of the word.



c corrected, “optical” spacing

In (c) you now see the word with corrected optical spacing. The letters with verticals in both words have been moved farther apart so that the total white space between letters is equal and the “color” of the word is even throughout.

Exercise: Making Words with the Skeletal Aleph-bet

When you feel you have understood the principles detailed above, try writing some words. The words below were chosen because they represent interesting spacing challenges.

Materials: Plain white layout paper, 2H pencil, ruler, any monoline writing tool—pen, pencil, marker.

Holding the paper horizontally, rule guidelines 1½ cm. high or ¾ inch high. Write out the following words with optically even spacing. If you see your spacing is off, redo the word—this is the best way to improve. When you think you have it right, go on to the next word. Tip: if you are unsure about your spacing, turn the page upside down and view it that way. When the letters are thus unrecognizable it is sometimes easier to judge the spacing.

רחוב יין כרם עדינות תפיסה תהילה
 שגיאה אפשר אפשרים ירושלים

Sometimes it is easier to see the faults in spacing when the word is turned upside down:



Word Spacing, and its Relation to Letter Spacing

How much space to leave between two words? This too unfortunately gets an “it depends” answer. It will usually fall between one and two “*yuds*” width, but it must be noted that word spacing is not independent of letter spacing nor even the type of script one uses. Our aim is to allow the reader to easily recognize when one word ends and another begins. On the other hand we do not want the eye to have to “jump” long distances to get to the next word; too much space leaves patches of white in the middle of our line and disturbs the horizontal travel of the eye. See (b) below for how little space is actually needed to differentiate a new word. However if the spacing within the word is loose (d) we will need more space between words (e).

Sentence (a) below is considered normal spacing though notice that even if word spacing is reduced (b), the individual words can still be easily differentiated. In (c) there is too much space between words. This makes the words seem like separate entities instead of units in a line of writing and the eye would have to jump too far to read the next word. In (d) the letter spacing is loose and the separate words cannot be differentiated easily. With loose letter spacing, word spacing needs to be increased (e) in order to facilitate the recognition of separate words.

האדם חייב להתחדש תמיד a

regular word spacing

האדם חייב להתחדש תמיד b

tighter word spacing (individual words still easily readable)

האדם חייב להתחדש תמיד c

loose word spacing

האדם חייב להתחדש תמיד d

loose letter spacing (identifying separate words a bit more difficult)

האדם חייב להתחדש תמיד e

loose letter spacing with adjusted word spacing

Now that the basic principles of arranging letters have been understood it is time to move on to making those letters with a broad-edged pen. (That doesn't mean we are finished with our discussion of spacing. The important subject of interlinear spacing and making a text block will be discussed later, in Chapter 11, “Layout and Design”.)

Chapter 3

Tools & Materials

CALLIGRAPHY AT ITS ESSENCE requires only the simplest of materials—pen, paper and ink. A good understanding of their many varieties will help you choose the right combination.



Reed pen, turkey quill

Pens

The tools we use to write with no doubt influence how our letters look. Although reed pens and quills of bird feathers were the traditional tools of the pre-industrial age, the modern calligrapher will most likely find it more convenient to begin with a metal-nibbed pen. This in no way is meant to imply that metal pens are superior. The experience of writing with a sharp, newly-cut turkey quill on a beautifully prepared piece of vellum calfskin is a sensual and calligraphic experience not to be missed. But this chapter will be addressed to the typical beginning calligrapher, and so our discussion will be limited to metal nibs.

Metal nibs can be broadly classified into pointed nibs and broad-edged nibs. With pointed nibs one varies the thickness of the line according to the pressure one places on the nib. With broad-edged nibs, the important factor is the pen angle and pen direction. We will talk about this extensively throughout the book. Since almost all the scripts taught in this book are formed with the broad-edged nib, we will limit our discussion in this chapter to these types of nibs.



Broad-edged pen with Brause nib



Pointed nib and type of line and letter it can form

Broad-edged nib and type of letter shape it would form

Metal broad-edged pens can be divided into two major categories, fountain pens and dip pens. Each has its advantages. Fountain pens are convenient: they have cartridges that hold large amounts of ink, the ink flows evenly and one doesn't have to fiddle with messy first attempts of dipping a pen into a bottle of fresh ink. Dip pens, which consist of a nib with a relatively small reservoir attached to a holder, require more patience in the beginning to master. However, once one gets the hang of it, the advantages of the dip pen considerably outweigh the initial inconvenience. Firstly, the nibs for dip pens

are sharper than those of fountain pens and will give crisper, better-defined letters. Secondly, in order for the ink to flow easily, fountain pen inks must necessarily be thinner, more watery, less viscous; the letters produced by them will appear less vibrant. Likewise, if one wants to write in color, the colored inks usually used in fountain pens appear watery and transparent. More importantly colored inks are for the most part not lightfast, meaning they fade in time. I have seen works where the letters written in colored inks have vanished completely after just a few years. With dip pens one can use gouache and watercolors and thus you have available a wide range of strong, lightfast colors.

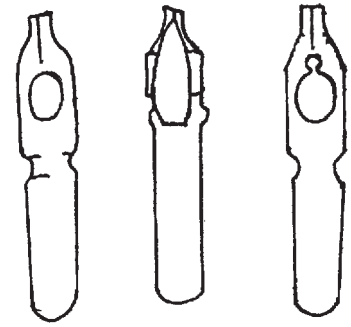
So it is my strong recommendation that the beginning calligrapher start right away with dip pens (though if all you have available is a fountain pen set, don't let this hinder you. Use your largest size nib to begin with). As mentioned above, dip pens consist of a nib which fits into a holder. The nib comes with a reservoir which in most instances is adjustable and removable. Brause, Mitchell, Speedball and Tape are some of the companies producing good quality metal nibs, with Brause nibs being the stiffest, and Mitchell the most flexible. I find the Speedball pens (C series) to be fine for large writing but their smaller sized nibs do not give sharp enough letters for formal writing. The Speedball pens have their reservoir permanently attached. The reservoirs on Brause and Tape are attached above the nib and in the Mitchell they are beneath the nib; in all three of the latter the reservoirs are detachable.

For convenience sake, in this book I will be referring to the Brause nibs for the exercises, as their sizes are numbered according to their width in millimeters, but one should also try the others to see what best fits your hand. Someone with a light touch might prefer the Mitchells, one with a heavier hand the Brause. Whatever you choose I recommend you get a full selection of sizes. At some point in your calligraphy you will want to write both large and small and everything in between.

When buying or ordering these nibs you will notice that they are offered in different “cuts”, meaning the angle of the nib edge. Some are cut square, some are cut right-oblique (called simply oblique) and some are left-oblique. You can write with any of them, though for some Hebrew scripts, such as the Ashkenazic, which require a very steep pen angle, you might find the left oblique nibs to be the easiest to write with, whether you are right or left-handed. In general, for Hebrew, the left oblique allows the arm and hand to be in the most natural position, next would be the square cuts (called "Roundhand" in the Mitchell series—Brause nibs do not cut come square-cut), with the right-obliques requiring some arm adjustment to maintain the correct pen angles.

Pen Holders

Pen holders come in different sizes and shapes. Choosing one is really a matter of personal taste so try a few to see what feels best. I suggest you choose a perfectly rounded shape for the barrel as some holders force you to fit your



Different cuts. From left to right: Left-oblique, Right-oblique, Straight cut



Commercial nibs. From left to right: Speedball, Tape, Brause left-oblique, Brause right-oblique, Mitchell left-handed

fingers into their predetermined shapes which might not necessarily be the best place for your particular hand. I use a very simple, inexpensive one, the Caran d'Ache 114 holder, which is a rounded barrel with “serrations” to aid the grip.

Paper

Papers come in all sizes, shapes, weights, textures and colors. For practice, a good layout pad will be useful, such as Boris #37 by Borden and Riley. The surface of these papers have a bit of “tooth”, and “grab” the ink better than plain photocopy paper and will give you sharper letters, though good quality photocopy paper might suffice in a pinch. For final pieces you will want to look into finer papers. There are several characteristics that a Western calligrapher looks for in a paper. One is that it will hold the ink sharply and not bleed. The ingredient that is put into papers by the manufacturers to prevent bleeding is called size. Not all papers are sized the same so you will have to experiment a bit. Another very important characteristic you want in your paper, especially for permanent works, is for it to be archival. Wood-pulp based papers for example have a high acidic content and will discolor or disintegrate relatively quickly with time (think of old newspapers). So when buying a paper make sure to ask for an acid-free, or pH neutral paper.

Papers can be handmade or machine made. Handmade papers often have more “personality”, while machine papers will have a more even consistency. Handmade papers are made one sheet at a time and will have four natural deckled edges. Machine papers that are produced continuously in a roll will have four straight edges, whereas machine-mades that are produced one sheet at a time (mould-mades) have two deckled and two straight edges. Handmade papers are not necessarily better than machine-mades. It all depends on what fits your purpose best.

Machine papers have a grain direction which you need to be aware of if you are planning on folding the paper (e.g. for a book or a greeting card). Only fold in the direction of the grain. To find out the direction of the grain, loosely fold over the paper and press gently (being careful not to crease the paper) first in one direction then the other. You will find that it folds easier (less resistance) in one of the directions. This is the grain direction. Handmade papers do not have a single grain direction and may be folded either way.

Papers also have different surface textures. Some are smooth (as a result of the paper being pressed between rollers after it is made), some will have a slight toothy texture, and some will be rough. Smooth papers with a bit of tooth are probably the best papers for traditional writing—you will get the cleanest line and crispest edges with them. There might be occasions though when you prefer a rough look to your letters, making a rough paper the better choice.

Papers also come in a plethora of colors. The calligrapher is not limited to light colored papers as one can write with light-hued gouache even on black papers. See the section “Writing with Color”, in chapter 13.



The texture and deckled edges of this Israeli handmade paper adds visual interest to a simply designed ketubah by Izzy Pludwinski.



Above and below: Writing on rough paper can add interesting texture to the edges and inner parts of your strokes.



Inks

Start with a black ink. There are many inks on the market and you will probably begin with what your local art supply store can offer you (a list of some online supply stores are given at the end of the book). We want the ink to be rich in its blackness, flow nicely from our pens, and be able to give us sharp strokes and thin hairlines. For practice, one might want to start with an easy-flowing, non waterproof ink such as Higgins Eternal. For more serious work I recommend liquid sumi, which will give you a much darker black. (I use a liquid sumi made by Yasutomo but there are many other brands). If you really want control over the thickness and blackness of your ink, try a Chinese or Japanese stick ink, which is ground over a slate stone with a small amount of water. One should be aware that these sumi inks dry waterproof. Although you should always be meticulous in caring for your nibs and not allow inks to dry in them, this is especially true for waterproof inks. To clean your nib, remove the reservoir if possible, dip in water and wipe dry. Do the same for your reservoir. If necessary, scrub with an old toothbrush to remove any remaining ink.

Until you find one that works best for you, I urge you to constantly try out different inks as each have different properties, and new ones continue to appear on the market.

Other Equipment

In addition to the above, you will need a good ruler. The units given in this book are in millimeters; choose a ruler with clear and accurate markings. I find the easiest rulers to read are white ones with black markings.

You will need a few different pencils. Pencils are graded according to their hardness. HB being of medium hardness, then getting harder going from 1H to 9H. Likewise, the Bs get softer going from 1B to 9B. You will need a 1H (or simply H) pencil for ruling lines and an HB or 2B for the skeletal *aleph-bet* exercises. Always keep your pencils sharp!!!!

You also might want an inexpensive round or pointed brush for filling your pen with ink. Also have a lint-free rag for wiping your nibs, and a good non-abrasive eraser for erasing penciled guidelines.



Stick ink with round suzuri (grinding stone), and bottle of liquid sumi



A variety of other broad-edged tools. From right to left: fountain pen, flat-edged brush, "Parallel Pen" (a fun tool that combines some of the better qualities of dip pens and fountain pens), Automatic pen (for writing large letters), Popsicle stick, Carpenter pencil

Chapter 4

Getting Started

Posture and Body Awareness

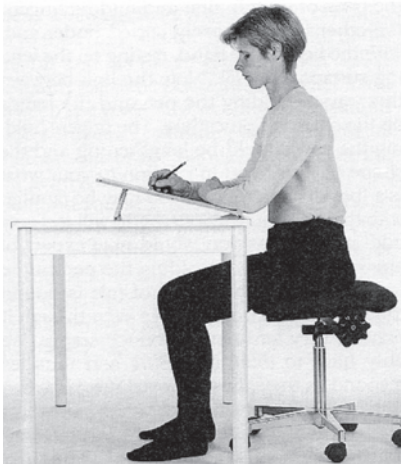
I TAKE IT AS A GIVEN that in life we would like all of our movements to be as efficient and as effortless as possible, with our breathing soft and free of tension. Calligraphy is not an activity separated from life and thus these ideals naturally apply to the way we write. Since calligraphy can be, especially in the beginning, an act that demands intense concentration, it is important not to lose awareness of our body in the process.

Much has been said about the importance of posture in writing. Posture however is not to be thought of as a single, correct, static position that the body must maintain at all times. Posture is a dynamic state requiring ever-changing skeletal and muscular alignments as we move. Ironically, trying to maintain a correct static posture while moving often forces us into moving in a stiff manner that can have adverse effects on our body.

Thus it is recommended that from the outset one pay careful attention to how one writes. On a personal note, early on I developed bad writing habits and even today, after 30 years as a calligrapher, I still need to be constantly aware of writing properly. “Properly” means all your muscles are working for you in an efficient manner, movement is natural and effortless, breathing is not impaired by slouching, and you do not waste energy and create tension by gripping the pen tightly as if daring someone to grab it out of your hands.

During writing, try from time to time doing a “body scan”, starting from the top of the head, moving on to the facial muscles, neck, shoulders, back, rib cage, continuing methodically all the way down to the toes, all the while asking yourself such questions as: Am I unduly tightening up any muscles? Am I holding my breath? Am I slumping? Are my shoulders raised unnecessarily, causing tension in the neck? If you do find yourself tensing a part of your body, then pause, isolate that part of your body in your mind, and softly exhale into that part while letting go of the tension.

Often tension is caused by the anxiety of needing to succeed. Try to place the emphasis on enjoying the act of writing for its own sake rather than the result. (See “Attitudes” below). I also join the many teachers who recommend deep breathing exercises as preparation before writing. For a deeper understanding of proper body-use one can benefit from studying a proper body-use discipline such as the Alexander or Feldenkreis method.



Relaxed body position for writing.
From *Body Know-How* by Jonathan Drake



Sitting at a kneeling chair

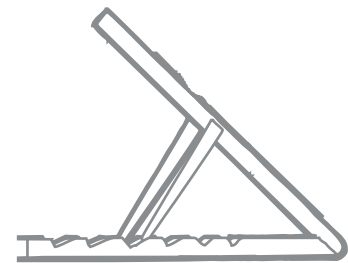
Setting Up Your Work Surroundings

Position your paper centered in front of your body (left-handers see below). If you are using a conventional chair, then both feet should be resting on the ground, your weight evenly balanced on your buttocks. (I personally use a kneeling chair which I find most comfortable, prevents slouching and relieves strain on the lower back). Your chair and table should be at a height which allows you to sit up straight—table not too low where you need to slouch or bend over excessively, nor too high where you need to raise your shoulders. You might find it more convenient (and certainly easier on your back) if your writing surface is sloped. How much so is a matter of preference. 45 degrees is a good starting point. In general, flatter surfaces will increase the speed of ink flow. If you are a beginner you might want to simply place a writing board sloped over some books. Later on you might want to invest in a portable drafting board or drafting table.

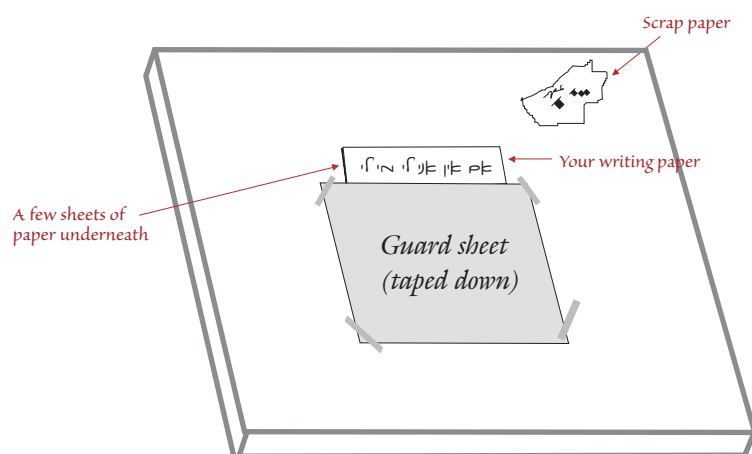
One should not write directly on a hard surface, but rather place a few sheets of paper underneath the actual paper you will be writing on. These can be taped with masking or drafting tape to the table. This will make things easier on your hand and also provide for a little “bounce” to your letters.

You do not want your hand to actually touch the paper you are writing on, as oils from your skin get on to the paper and will prevent your letters from being sharp. Therefore one should have another piece of paper, either taped or loose, covering the area not being written on, acting as a shield between the bottom of your hand and the actual paper. I also have a scrap piece of paper nearby which I write on to “get the ink going” before starting my letters.

Your workspace should have adequate lighting. Light should come in from the top left if you are right-handed, top right if you are left-handed.



Adjustable-angle drafting board, side view



Writing board setup

Attitudes

If this is the first time you are picking up a calligraphy pen, realize you are embarking on what will hopefully be an extremely enjoyable adventure, yet one that can be frustrating at times, especially at the beginning. The virtue of patience cannot be overstated. Getting good at calligraphy takes time and lots and lots of practice. My advice is, from the very beginning, to focus on the simple pleasure to be had in the very act of writing. When I first started learning calligraphy, I remember the joyous sensations I felt—feeling the glide of the pen on the paper; the feel of the ink flowing out of the nib, its edges working together to produce anything from solid thick lines to the thinnest of hairlines; the wet, jet black color slashing and enlivening the white of the paper. It is important to try to retain that simple and humble pleasure, keeping it separate from the inner critic that will be judging the quality of your letters. There will be inevitable frustrations that occur in the beginning trying to get your letters to look like the exemplars, and you should be demanding in what you seek in forming your letters, but do not let your enjoyment rest solely on whether you create that perfect letter or not. Calligraphy is meant to be an enjoyable act and every stroke one makes has that potential to give us joy.

Getting Started with the Pen

ASSEMBLING THE PEN

Attach the nib securely to your holder between the metal grips and the barrel, making sure it cannot wiggle. Nibs, when new, are covered with a very thin film of wax in order to prevent any rusting while they sit on the store shelf. We need to remove this layer. The simplest way is to dip the tip of the nib into a glass of near boiling water for around five seconds, and then immediately dip it into a glass of cold water. Wipe dry with a lint-free rag.

Position the reservoir by sliding it so that its tip is about 2 mm from the edge of the nib. Mitchell reservoirs are flexible enough to be shaped (see image at left). Make sure the reservoir does not “pinch” the nib, distorting its shape. Use tweezers if necessary to loosen the reservoir's grip on the nib.

PEN GRIP

For maximum control, the pen is gripped not too close to the nib, nor too far—somewhere about 1 cm from the bottom of your pen holder. The pen holder is gripped between thumb and slightly bent forefinger, while resting on the middle finger. You thumb and forefinger should not be touching. Keep your finger pressure to the minimum required for control—otherwise cramps and calluses might result.

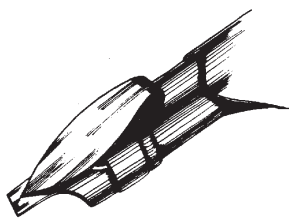
EXERCISE:

To get over the fear of the blank white page, think of this exercise simply as “play”. Take a clean sheet of paper, dip your nib (use a size 2 mm Brause nib or larger) into the bottle of ink and just begin making marks. Go in all directions.



Reservoir should be in contact with nib.

Side view of Mitchell nib. Note how the reservoir is shaped to allow for controlled flow of ink.



Brause nib - top view



Mitchell - bottom view

Proper placement of reservoir, around 2 mm from nib edge

Make horizontal strokes, vertical strokes, curved strokes, circular strokes, small strokes and large. How long can you make your straight stroke last before the ink runs out? Did your ink come out cleanly or as a blob in the beginning? Try dipping the pen deeper or shallower into the bottle when filling to give you a more efficient use of ink. Clean your nib with your rag as often as necessary. Try to get your first stroke to begin with a clean, sharp edge. If the ink is stubborn in coming out, try making (on scrap paper) quick back and forth “scratch” marks along the thin edge of the pen and then immediately make a thick stroke with the full nib. Do not allow the ink to dry in your nib as you will not be able to get a clean stroke that way. If the ink has dried in the nib, dip the nib edge in water and dry thoroughly. (Only dip till the end of the reservoir. Do not let water get into the grips of the pen holder.) You can run a slip of paper between the reservoir and nib to absorb the excess of water. Only clean nibs will give you sharp strokes!

Pull your strokes from left to right, then try pushing the pen from right to left. (Lefthanders will be pulling from right to left and pushing from left to right). Does the pen go easier in one direction versus the other?.

Pay attention to what part(s) of your body are involved in forming your strokes. Try this exercise: Make a straight stroke using only finger movements, without moving your wrist. How long can you keep your line straight without it curving? Now try again using motion by the wrist but keeping your shoulder locked. And finally let your motion come from a freed up shoulder. Hopefully your straight lines became increasingly longer. Be aware of these three ranges of motion as all three can come into play in your calligraphy.



Relaxed grip



Grip too tight

What about Lefties?

The good news for left-handers is that you have a certain advantage in writing Hebrew calligraphy. There is less of a chance you will smudge the letters you have just written, and no less important, your view of your writing is unimpaired, which will help you immensely in your spacing. Having said that, left-handers do have a general problem in calligraphy. If you keep your paper upright and directly in front of you, you will see that it is not possible to keep the correct, relatively steep pen angle (see “Pen Angle” below) required for Hebrew calligraphy without uncomfortably bending back your wrist. Using a left oblique nib (available for the Mitchell, Brause and Speedball nibs) will certainly help. In addition, you will have to make some position adjustments in order to write comfortably with the correct angle. See below for three possible positions.

Method a. **TURNING THE PAPER ON ITS SIDE:** This is the method I was first taught and still use. The paper is turned 90 degrees to the side. Your writing direction will be from the bottom up rather than from right to left. The disadvantage is the unusual visual perspective. However, once one gets used to this, there are many advantages. First, the wrist is in a

completely natural position. Secondly, one has an unobstructed view of the work so that spacing is much easier; and thirdly, since the hand falls below the line of writing there is no danger of smudging.

Method **b**. THE WRIST - TWIST: In this method the paper is held somewhat to the left of the body. The paper might also have to be slightly tilted towards you in a clockwise direction. In order to maintain the correct pen angle the wrist must be twisted back. Personally I find this extremely uncomfortable and I am not fond that the body is in an unnatural position. Having said that, there are many left-handed calligraphers who use this method successfully.

Method **c**. THE HOOK: In this method the paper lies directly in front of you. Because the pen must be pulled in order for the ink to flow properly, the only way to write with the hook position is to reverse the stroke direction. Horizontals go from right to left, verticals from bottom to top. This is an unnatural way of forming the letters as one loses the natural organic rhythm in the structure of each letter. I would only try this as a last resort, though admittedly, spacing is relatively easier with this method.

Obviously there is no one perfect method. Each has advantages and disadvantages and it is only by trying them all out that one can know what works best for you.



a Sideways



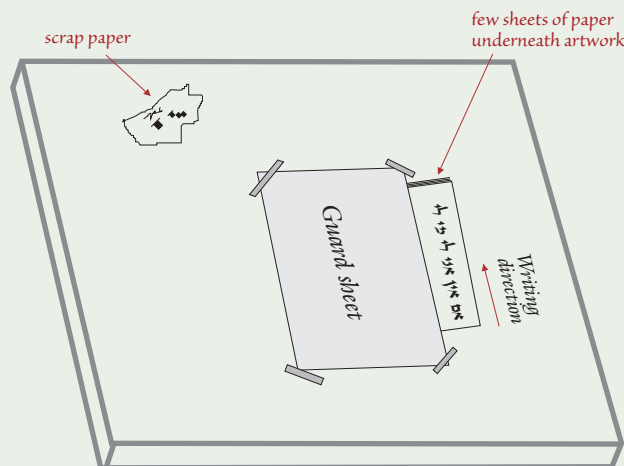
b Wrist-twist



c Hook



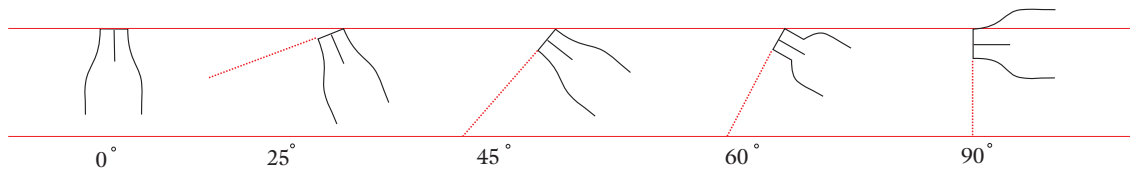
Three methods for left-handers and how a *reish* would be written with each one—sideways, wrist-twist, hook



Writing board setup for left-handers using the sideways position

PEN ANGLE

The obvious difference between writing with a broad-edged pen and a ball point pen is that the former can give you thick and thin strokes. The control of these thick and thins is one of the skills that will be essential for you to develop. You might have noticed in the previous exercise that you change the thickness of your lines depending on the pen angle and direction. *Pen angle is the angle the edge of the pen makes with the horizontal line of writing.* We will now investigate this methodically.



Holding the pen at different angles

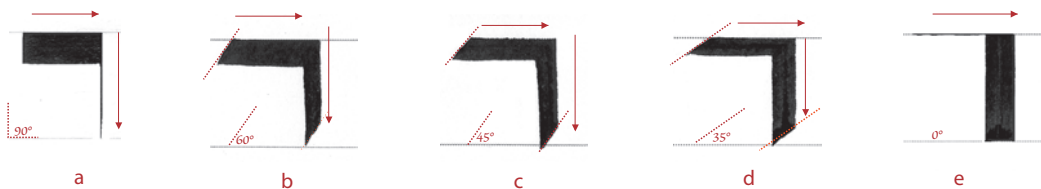
If you hold the pen such that its edge is perpendicular to the line of writing—in other words at a 90 degree angle—and make a horizontal line, you will get the thickest line possible with that particular pen. Conversely, if while holding the pen at the same angle you make a vertical line, you will get the thinnest line possible with the pen (See [Figure a](#) below).

If you now slightly flatten the angle, let's say to 60 degrees, and draw a horizontal line, the line now becomes slightly thinner. Conversely, if you hold the pen at the same 60 degrees to the line of writing and make a vertical stroke, the vertical line is wider than the one drawn at 90 degrees ([b](#)).

If you flatten the pen angle further and hold it at 45 degrees, then again the vertical line becomes thinner and the vertical line broader. Notice that at 45 degrees, your horizontal and vertical strokes will be the exact same thickness ([c](#)).

If you flatten the pen angle to less than 45 degrees, let's say 25 degrees, the horizontal strokes become even thinner—the vertical stroke is now thicker than the horizontal ([d](#)), and finally, at 0 degrees, the horizontal becomes the thinnest line possible and the vertical the thickest ([e](#)).

Much of beginning calligraphy involves controlling these pen angles, as it is the contrast between thick and thin strokes which gives broad-edged calligraphy its distinctive beauty.



Figures a-e. Horizontal and vertical strokes made with different pen angles

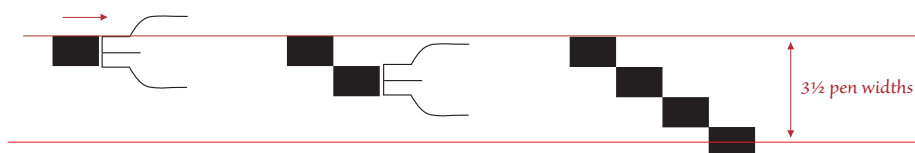
In most Hebrew calligraphic scripts, the horizontal strokes are thicker than the vertical strokes (which is opposite of most Latin calligraphy scripts) and so we will be working at pen angles greater than 45 degrees.

GUIDELINES AND PEN WIDTHS

Calligraphers rarely write directly onto a blank piece of paper. Most calligraphers use guidelines to help keep their letters an even height. In the beginning you will need to rule both top and bottom guidelines with a pencil. (As you gain in proficiency and experience you might choose to dispense with the bottom guideline as traditionally Hebrew letters were written “hanging” from the top guideline). Some beginners (and admittedly some not so beginners) view ruling guidelines as a tedious, mechanical task but I find it beneficial to use this time to relax and center myself and prepare mentally for whatever project I am about to embark upon.

How far apart we rule the guidelines depends of course on what height we want our letters to be. The letter height depends on the size of the nib/pen we will be using. To better understand the relationship between letter height, letter weight and nib size we need to introduce a simple unit of measurement—the “pen width” (abbreviated p.w.). This is also sometimes called “nib width” or “nib unit”. A nib unit is simply equal to the width of your pen nib, which is also the width of the thickest line you can make with that nib. (Brause nibs are sized in this manner—its 2 mm nib is 2 mm wide.) This unit is very useful, as any particular alphabet will be set at a height of a specific number of pen widths. For example, our first alphabet will be set at a letter height of $3\frac{1}{2}$ pen widths. So if I am using a Brause 2 mm nib I know my letter height will be 7 mm tall ($3\frac{1}{2} \times 2 = 7$), and I will rule guidelines 7mm apart. If I want a smaller sized letter, I would use a smaller sized nib; for a 1 mm Brause nib (for this particular alphabet) my letters would be $3\frac{1}{2}$ mm tall and I would rule my guidelines accordingly $3\frac{1}{2}$ mm apart. A 4 mm nib would have letters 14 mm tall.

If you are not using a Brause nib, you can figure out your pen width by holding the pen at exactly 90 degrees and forming short, horizontal strokes, each one just below the other. Then measure from top stroke to bottom stroke. For half units measure till half the bottom stroke.



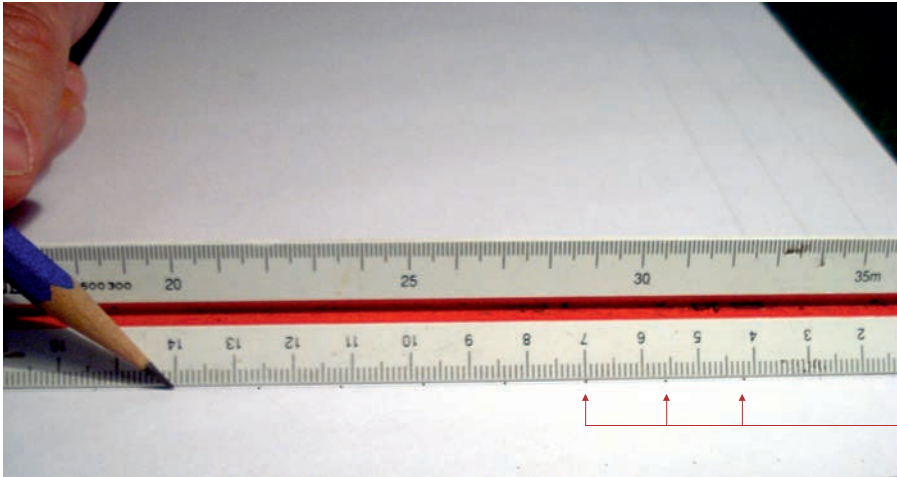
1. Holding the pen at 90 degrees make a short horizontal stroke.

2. Make second horizontal stroke just below first—it is important to be very exact both in the placement and in making the stroke perfectly horizontal.

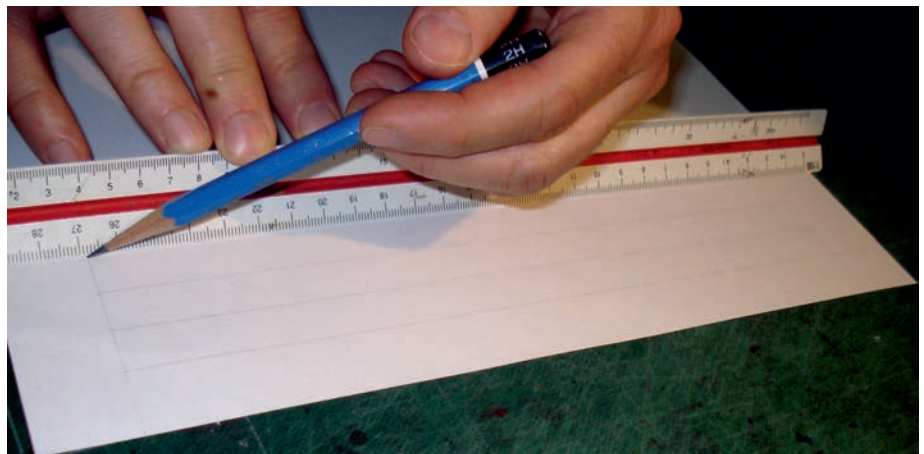
3. Continue until you have made 4 strokes and mark off half of the bottom stroke.

There are many different methods to ruling up your paper. If you have an exact measurement for your letter height, 14 mm for example, simply place the ruler down the right side of the page and tick off small, pin-point dots with your H pencil 14 mm. apart. Do the same down the left edge of the page and then rule sharp, thin lines connecting the two dots. If you have a parallel rule or T square you will need only one set of dots. If you are not using a Brause nib and/or it is

RULING YOUR PAGE



Marking off small pencil "dots" at regular intervals along the side of the paper with a ruler. This is done on both edges of the paper.



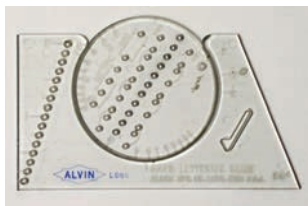
The dots are then accurately connected by drawing light, thin lines with a 1H or 2H pencil.



Diagram on left clarifies what a ruled up practice sheet, with margins, might look like. Optional 60 degree pen angles to act as guides were added. These can be easily constructed with a protractor.



Divider



Ames lettering guide



Ruling with the Ames lettering guide.



Filling nib with a brush

difficult to obtain an exact measure of your letter height with a ruler you can mark off the top and bottom edges of your letter height (as determined by the method described above) onto a blank piece of paper and “tick off” the markings onto your writing paper and rule accordingly. Or you can use a metal divider to step off the marks. Another very useful and inexpensive tool that can make ruling much simpler is an Ames lettering guide. See illustration.

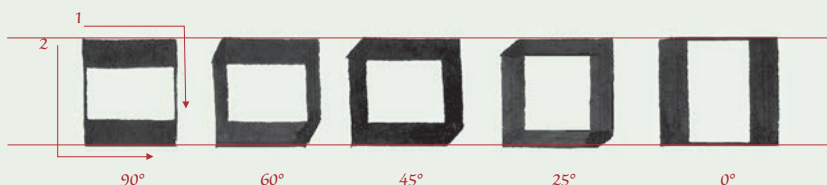
Exercise: Making Geometric Shapes at Different Pen Angles

Tools: Pen with Brause 2 mm nib (or any other brand nib of equivalent size), 1H pencil, ruler, black ink, round tipped, size 4 or 5 nylon brush

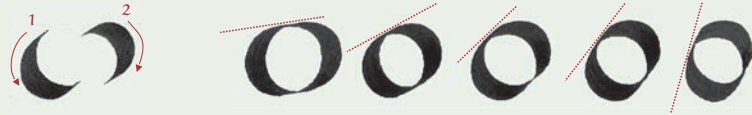
Since our first alphabet will be at 3½ pen-widths tall we will also do this exercise at that height. Rule up a blank piece of paper 14 mm apart if you are using a Brause 4 mm nib (If using a different nib rule up your paper at 3½ pen widths tall with whatever size nib you will be using. Use a larger rather than smaller nib for this exercise). Fill your pen reservoir around halfway with ink. (This is just a starting point—you might want to fill it more or less than this depending on what ink you are using, what paper you are writing on, the slope of your writing board, etc. etc.). There are two ways to fill your pen— either by dipping the pen directly into your ink bottle or filling it with a brush. I use the second method as it gives me more control over how much ink is added. Holding the brush in my non-writing hand I fill the reservoir halfway. (You do not have to use a good brush for this although I do find the better the brush, the more pleasant the experience. A day's work of writing might involve dozens and dozens of ink fillings and we want each stage of our work to be pleasant). If you dip your pen you might have excess ink which you might want to dispose of by writing on a scrap sheet which you should have handy near your writing paper. Once you get a clean stroke on your scrap paper go to your good paper as soon as possible as the ink can dry fairly quickly in your nib and pausing for too long might prevent you from getting a crisp stroke right away.

While holding your pen at a 90 degree angle, place the top edge of your nib just touching the top pencil line and make a horizontal stroke approximately 3½ pen widths wide. Without changing your pen angle (do not twist your wrist), make a vertical stroke. The horizontal stroke should be the thickest possible line you can make with this pen. The vertical should be the thinnest possible line—a mere hairline. Now place the pen back exactly overlapping where you began your first stroke and again come straight down in a thin vertical stroke. Without stopping, come straight across the bottom guideline until your stroke hits the right vertical.

Do the same exercise while holding the pen at the different angles—60, 45, 25 and 0 degrees, copying closely the squares in the exemplar.



Now try making circles, holding the pen at different pen angles. A circle is made in two strokes as it is easier to pull the pen than to push it. Start with a pen angle of 0 degrees and continue making circles gradually steepening the angles as in the exemplars below. Notice how each circle and square will have a slightly different look depending on the pen angle. Notice also how the shape of the inner white circle changes as your angle gets steeper. Keep a constant pen angle while making each shape. Keep your hand moving as a whole; the wrist does not twist at all.



You can also experiment by changing the *weight* of your shapes by using smaller and larger nibs while keeping the height the same. (This obviously changes the number of pen widths—the fewer the pen widths, the bolder the letter, or heavier the shape.)



You can practice the 45 degree angle in the following exercise. Hold the pen at 45 degrees and make diagonal strokes sloping at 45 degrees. This will give you a zig zag pattern of very thick lines and very thin hairlines.



Experimenting with pen made shapes can also lead to decorative possibilities.



Writing Letters—Finally!

Once you get the hang of the idea of pen angle we are ready to begin a Hebrew letter. Again rule up a page with 14 mm pencil guidelines. It is most important that your pencils be sharp and your ruling very accurate. (14 mm means 14 mm, and not 14½ or 13¾ mm!) Otherwise your letters will differ in size and this will destroy their unity and the rhythm of your writing. You should leave a little bit of margin on all sides of the paper—right, left, top and bottom, even on your practice sheets. We will discuss margins in more detail later on but we would like to get into the habit of being sensitive to esthetics—even if it is “only” on our practice sheets.

We are going to begin with the letter *resh*. Remember, Hebrew is read from right to left, so our first letter will be at the top right of the page. Within each letter, though, the strokes will be formed going from left to right, as it is easier to pull the pen than to push the pen. We want to begin with a sharp edge so it is important that the ink flow properly from the very start. I find it helpful to first test it out on the scrap paper. Make quick, short back and forth strokes along the thin edge of the pen till the ink flows freely and follow this by a full stroke. This will also give you information on how quickly the ink flows, if the pen is overinked, etc. Adjust as necessary. As soon as you have the ink flowing nicely on the scrap paper go directly to your good paper. Hold the pen at a 60 degree angle to the line of writing and place the top of your nib just touching the top guideline and make a horizontal stroke about 3 pen widths wide. Without stopping begin a gentle curve and then come straight down. Again, the 60 degree angle must be maintained at all times. (You might find it useful to draw a 60 degree line on your page so you can continually check the angle. You can do this with a protractor or, if you have the software, by computer.) Be careful not to twist the wrist as your hand comes down for the vertical. When the bottom of your nib hits the baseline, release the pressure and lift the pen. You have now made the letter *resh*.



Now, let's analyze the letter:



1. The horizontal stroke should be straight and just touch the guideline throughout.
2. Beginning and ending of strokes should be sharp
3. Line should be smooth and not wobbly on either edge
4. Curve should be smooth and rounded
5. Downstroke should be perfectly vertical
6. Pen angle does not change throughout the entire stroke.
7. Overall width of letter should be about 3 pen widths wide (and 3½ p.w. tall)

TROUBLESHOOTING SOME COMMON PROBLEMS:

Here are some common problems that beginners often have. By looking at the examples to the right you can critique your own work and make any necessary corrections.

a. Pen angle too flat, making horizontal too thin and vertical too thick. If you have problems finding the correct angle to begin with you can construct a 60° angle at the edge of your paper and place your pen against it to feel the angle.

b. Pen angle too steep, making horizontal too thick and vertical too thin. For correction see above.

c. Blobby letter, beginning and end of stokes not sharp. Wipe off excess ink from top of nib, fill reservoir less, or ink up your nib with brush instead of dipping into the bottle. Try writing on your scrap paper first until ink comes out properly. It might help to use a rapid back and forth motion along the edge of the nib till the ink releases. Then make a short stroke with the full width of the nib on the scrap paper and then as quickly as possible begin your stroke on your good paper.

d. Pen angle changes: This *reish* started with the correct pen angle in the horizontal stroke but as the vertical stroke was made, the pen angle became steeper. This happens when the wrist turns in a counterclockwise direction as you move into the vertical. Remember to keep wrist “locked” (but not stiff) and loosen your arm to allow motion to come from your shoulder.

e. Too curvy. After the curve downwards began the stroke continued curving inwards. If this is happening often, try pausing after the initial curve is made and then remind yourself to come straight down in a vertical stroke.

f. Too angular. We are aiming for a gentle curve. Look at the shape of the inner white space and compare with the correct shape of *reish*.

g. Letter too narrow. Can be confused with *vav*. Make sure letter should be at least 3 pen width’s wide.

h. Letter too wide. Even though this is still technically a *reish*, the classic proportion of *reish* has its horizontal and vertical stokes similar in length.

i. and j. Horizontal stroke not following the guideline. Practice, slow down. Sometimes it helps to focus on the white space you are forming rather than the black stroke itself.

k. Wobbly edge: This can happen when you are trying to make a straight line and your focus is solely on the top guideline. If you place pen pressure on the top of your nib only, the bottom of the nib can lift up slightly off the paper. Make sure when you are making your stroke that you feel both edges of the nib firmly touching the paper.

Now that you have made your first letter, it is time to begin your first *aleph-bet*.

