

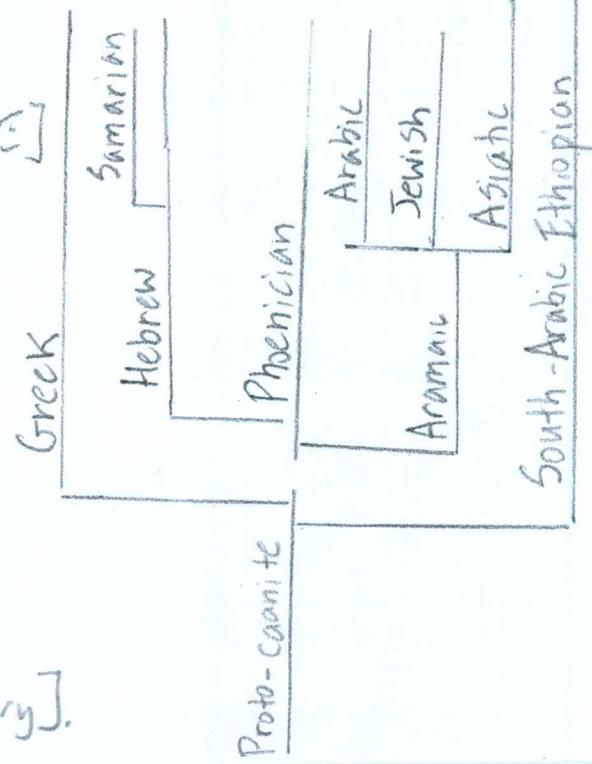
# Chapter One: A general survey of the Alphabet

## The beginning of alphabetic writing:

- Evidences elucidate the Near East in the second millennium BCE with:
  - 17<sup>th</sup>-12<sup>th</sup> Century BCE: Acrophonic Scripts, a hieroglyphic with the first picture as the sentence noun.
  - 14<sup>th</sup>-13<sup>th</sup> Century BCE: Ugaritic clay tablets
  - 13<sup>th</sup>-12<sup>th</sup> Century BCE: Single inscriptions
- Generally, 20-ish characters:
  - 28: Proto-canaanite
  - 22: Hebrew
  - 30: Ugaritic
- Phoenician artifacts from sea trade:
  - Nora, Sardinia, and Crete bowls
  - Arrowheads
  - Tablets
  - Coffins,
- Language heritage derives from:
  - Similar history, tools, and calendars.

Countless photos  
in book

- Punic Wars (9<sup>th</sup> Century BCE):
  - Phoenician was a major language in North Africa, with dialects, styles, and colonies.
  - The language faded in trade by 300BCE, proof by lack of coins, popular writing methods, strokes, ligatures, and boldness.
- Soon after the Punic Wars, cultic objects led Hebrew's dawn:
  - jars
  - stone seals
  - amulets.
  - ivory inscriptions
  - alabaster tablets
- Researchers studied the revolts and riots about the destruction of cultic items.
- Primary items in the Neo-Punic era:
  - Gezer's Calendar
  - Hazor's Inscriptions [9<sup>th</sup> BCE]
  - Carthage [314 BCE]
- In Syria, (12<sup>th</sup> century BCE)
  - Cananites developed.
  - Fragments in the Louvre, specifically Moabite inscriptions [9<sup>th</sup> century].



◦ Various alphabetic evidences:

- Phoenician: long-tailed letters, curved to the left
- Samaria: jars
- "Tell Qassileh": jars
- Jerusalem: cultic items, jars, gates, stones
- Judea: jars, ostraca, societal bearing.

◦ Aramaic language: caves [3<sup>rd</sup>/2<sup>nd</sup> century], and scrolls [132-135 CE].  
◦ Semitic language: semi-cursive, brush and ink, also had ligatures.

◦ Political influences characterize many regional

alphabets in archeologic sites:

- Moabite      - Ammonite      - Edomite

- Philistine

◦ Believed tribe evidences: clerks, scribes

- Settlements

- clerks and scribes

- Scholars between regions

- Nationalities, regions, royalties across Asia minor, Egypt, and North Arabia

- Bricks with labels - Funerarys
  - Ostraceas to the islands with names/letters
  - Tax collection on ships
  - Elephantine Islands
  - Aramaic graffiti
  - No language connections between regions
  - Ink vs Hard material
  - Round vs cursive writing
  - Ligatures vs Semi-ligatures [Pen-lift]
- Alexander the Great conquered Persia [323 BCE],  
a third-party source for rapid -regional exiles,  
migration, and new writing.
  - First - Meeting w/ Alexander the Great:
    - Eastern Babylonians lost to Nebuchadnezzar [596 BCE]
    - Southwest Egypt destroyed Mesopotamia [6<sup>th</sup> BCE]
    - Jews exiled to East Mediterranean
    - Bible and Torah juggled between Aramaic, Hebrew,  
and "Paleo-Hebrew", now in Rockefeller Museum  
of Antiques.  
Jerusalem.

- Chapters Samuel, Jeremiah, and Exodus emerged from Qumran [3BCE]
- Ten commandments on Papyrus [2<sup>nd</sup> BCE]  
now in Cambridge University Library OR. 233.

Chapter Two: A general survey of the Jewish Script and 'Square' Hebrew text:

- Museums:
- Ecole Biblique et Archeologique in Jerusalem
  - Rockefeller Museum of Antiquities, Jerusalem
  - Israel Museum
  - Bible Land Museum
  - Institute of Archaeology at Hebrew University
  - Hebrew Union College
  - Museum of Tiberias
  - Hecht Museum.

Locations:

- Second Temple
- Judean Desert
- Jericho
- Jerusalem

- Byzantine

Style | Purpose | Tools: ◦ Thin Calamus (Reed Pen)

- Carbon Ink

- Iron Ink

- Phylacteries

- Deeds [Greek / Aramaic, dated]

- Biblical scrolls

- Letters [Hebrew, Aramaic, Greek]

} semi-legible  
by 30 BLE  
to a third  
year study.

Top pieces: ◦ Qumran Cave: Judean scripts, Second temple riots, Exodus, Samuel, and Jeremiah

◦ Nash Papyrus: Judean desert scroll in semi-cursive about the ten commandments

◦ Hidden scrolls: Various scrolls purchased by E.L. Sukenik, a professor, in antique shops or great antiquity shops.

- Scientific method for technology, size, pattern, photographic method, holography, letter-copying
- Handwriting styles:

◦ character

◦ geography

◦ chronology

## Basic rules of Paleography:

1. Letter strokes against "root" letter for an entire alphabet
  - Basic skeleton
  - Number of strokes
  - Direction
2. Stroke meeting point and angle
3. Regional comparison at a time for style
  - Round vs. Wavy
  - Shorter or longer
  - Broken or joint
4. Letter form rate of development
  - Earliest and latest inscription or manuscript
5. Different letter forms at a period as a result of history
6. Letter groups
7. Individual letter signs, mosaic, or artistic style.

8. Implementation, speed of writing, size, time and place

- Letter, Surface, brush, reed-pen, quill, chisel

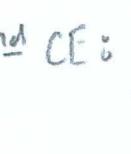
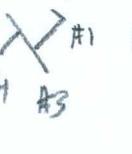
- Cursive

- Mutual letter inflation

Paleographic Analysis of the letter signs:

[2<sup>nd</sup> century] Psalms scrolls

- Alef appeared from the stroke number

Today:  2<sup>nd</sup> CE:  6-5 BCE:  Compound stroke

[1400's]: Amsterdam - printing center with  
free characters, "le Bé's patterns, Latin typefaces,  
and Menashe's ben Yisrael - 'Amsterdam letters'

Yiddish Newspaper

[1600's] Hebrew Newspaper, Qohelet Massor, Berlin

[1750's] Flame'assaf from Königsberg

[1793] Hebrew bible, connecticut editions

[1813] - Hassidic movement printed the 'new' Talmud

[1800's] Lithuania, largest Jewish printing house

'The Widow and Brothers room' in Vilnius

Warsaw, Poland, many Jewish after WWI and WWII

[1900's] Ashkenazi and Sephardi letter forms - Drugin Press

Typefaces: Frank and Rohl

Latin

Venetian

Ethiopic

Stam

Haggim

Jan le Witt

Koren

Hadassah

David

Orin

Ada

Hazvi

## Part II: Hebrew Paleography:

Chapter two: Graphic elements of Hebrew letters and  
the basic rules of Hebrew paleography.

"Jewish" communities developed:

- Calligraphic writing
- Semi-cursive [An 'Eastern' Hebrew script from Byzantine, Central Europe, Italy]
- Extreme cursive
- Reed vs. Quill Pen
- Argued - Christians duplicated in churches and Universities

Jewish duplicated with pen since Torah

### Chapter 3: Printed Hebrew Script:

Printing Press timeline:

- Originally, imprinting was in clay.

[868] - Chinese were the earliest printers with wooden blocks, movable clay types.

[1370] - Wood blocks by saints in Europe

[1440] - Strassburg, Johann Gensfleisch from Mainz invented the printing press of movable types

[1445] - Alphabetic charts and abridgements  
by Donatus

[1455/6] - Bibles called Catholicon

[1470] - Hebrew terms by Prokopp Waldruge

[1488] - Bibles by Sonairo family in Milan

[1498] - Hebrew books till Spain expelled the Jews

[1553] - Venice, a document about censored books

[1566] - Designs by Guillaume le Bé of Tross  
with Bibles and scripts

[1600] - 4,000+ Hebrew books

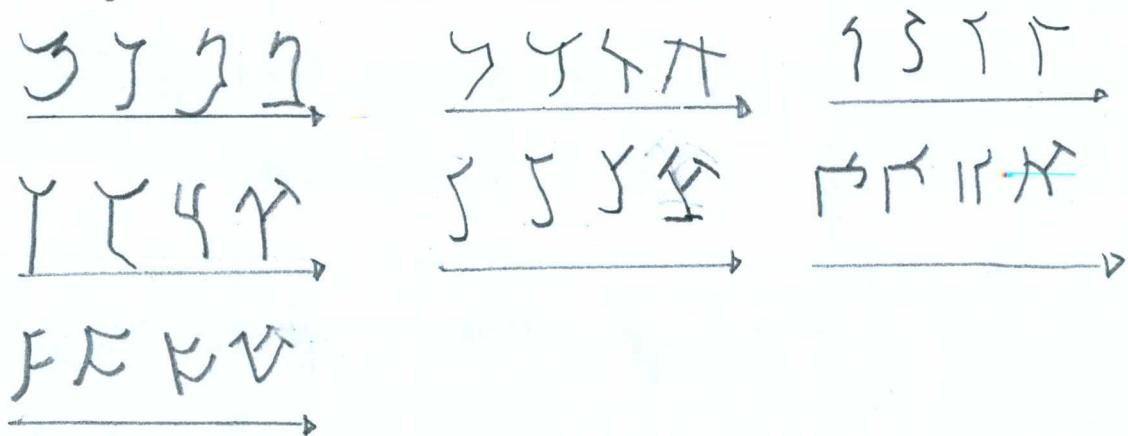
### Basic Stroke Characterization

1. Curving - concave, convex
2. Straightening - curved line becomes straight
3. Lengthening - relative length
4. Shortening - relative length
5. Undulating - an undulating or wavy form
6. Angulation - creation of an angle
7. Thickness - total, partial, or gradual

8. Narrowing - total, partial, or gradual

- a. Omission of stroke
- b. Direction change
- c. Meeting points
- d. Additional Ornament
- e. Analogy Stroke
- f. Grouping
- g. size
- h. writing implement, grasp, cut in
  - I. right-angled flat instrument
  - II obliquely cut instrument
  - III letter merges for implement or style

Examples:



Paleographic scribal rules from Jewish literary Studies:

'arm' - left or right downstroke

'base' - the lower horizontal stroke

'foot' - additional stroke

# Current State of Hebrew Paleography

- Hebrew in Genizah in Cairo
- Dead Sea Scrolls
- Fragments about Exodus:
  - Ashmoleum Museum in Oxford
  - Bodleian Library in Oxford
  - Erzherog River Papyrussammlung in Vienna
  - British Library in London
  - Staatliche Museum zu Berlin
  - Universities Heidelberg and Cologne
  - Macquarie University Library in Australia
  - Ann Arbor Library, Michigan
  - San Cugar del Viales in Spain
  - John Rylands Library in Manchester
  - Biblioteca Medicea Laurenziana in Florence
  - Pushkin Museum in Moscow
  - University Library in Cambridge

'heel' - the lowest downstroke

'horn' - stroke #3

'leg' - the left or right downstroke

'mast' - a flag attached to a letter

'nose' - a curved or last inward stroke

'roof' - upper horizontal stroke

'String/Seif' - short stroke

'tail' - exhausted or projected stroke

Comparisons:

- genealogy - Kind, burial, inscription, votive, conscription  
grave, seal, self-impression, inscribed, or  
Painted

- Provinance - straceon, list, graffiti, deed, book,  
scroll, market

- Technique - Stone, ivory, wood, clay, gypsum, metal,  
copper, silver, gold, mosaic, paint, on  
stone or plaster, clay

- Implement - stylus, chisel, reed-pen, brush, calamus, quill

### General Description of Scripts:

I. The nature of the script : accomplished, free fluent, regular, vulgar

Clumsy, square, ornamental, semi-formal,  
semi-cursive, cursive, formal.

2. Thick, thin, or medium stroke: slightly discontinuous
3. Form of writing: sharp, flat, broad, narrow, fringed,
4. Angle, right, parallel, oblique, perpendicular
5. Direction
6. Stroke inclination, leaning backward, forward, upright.
7. Relative width
8. Degree of uniformity: homogeneous
9. Ornamental additions
10. Size of a letter
11. Irregular forms and features: W N X S V X X X
12. Transversal stroke: horizontal, straight, slanted, descending
13. Descending to the right
14. Downstroke: vertical, slanted
15. Transversal stroke: curved, convex, concave
16. Downstroke: curved, open to the left, right
17. Thick, thin, changing thickness
18. Transversal stroke: bent or curved

19. Downstroke: bent or curved.

Example: Serif: thin, thick, of medium thickness, flat, sharp, fringed, cut at a right-angle or oblique, held parallel.

## Chapter Two: The Handmovements and Direction of in Hebrew Writing.

### Hebrew vs. Aramaic Variety:

- Round vs. Obligue
- 45° angle
- Thick base - stem

### Part Three: Script Styles:

#### 1. Early Jewish and Pre-Jewish Script

3<sup>rd</sup> century [Qumran], size, guidelines, proto-Jewish

#### 2. The 'Pre-Jewish' cursive script

22 basic letters in the Exodus scrolls from Qumran.

#### 3. The early Hasmonean Script

2<sup>nd</sup> century BCE: P, Q, D, Z, T, I, J

#### 4. A semicursive mixed Hasmonean script

2<sup>nd</sup> century BCE - Aramaic mix with 45° slant

## 5. Herodian Book-hand

- Hasmonean (150-30 BCE), Herodian Period (30-70 CE)
- Post-Herodian Period (70-135 CE)
- War scrolls
- Thanksgiving scroll

## 6. Post-Herodian Script

- 120 CE - Nal Heve deed and gift

## 7. The post-Herodian extreme cursive script

- 135 BCE - Wadi Murabba double-deed

## 8. A semi-cursive of the late 2<sup>nd</sup> or 3<sup>rd</sup> century

- Bar Kokba revolt

## 9. Burial Inscription of the 3<sup>rd</sup> or 4<sup>th</sup> century

- Coffins from Beit She-arin

- Gallius rebellion

## 10. The 'Eastern' script-style on Papyrus of the 5<sup>th</sup> century

- Marriage contract from Antinopolis Egypt

- Down strokes, wavy, serifs, and points to the bottom

11. Book-hand on papyrus of the 3<sup>rd</sup> to 6<sup>th</sup> century.

- Official letters from Oxyrhynchus [3-5<sup>th</sup> century]
- leans forward, base strokes, slanted, unique roots

12. Script of Mosaics about 6<sup>th</sup> BCE

- Mosaics on the Halactic inscription found in the Rehov Synagogue

13. Script of amulets of the Byzantine Period.

- 50 amulets
- Base stroke, slants upward, looks ornamental.

14. Script of incantation Bowls from Byzantine Period.

- Bowls from Iran
- Short, square, horizontal root

15. The 'Eastern' Biblical Bookhand

- Post-Herodian Period - Cairo Genizah [8<sup>th</sup> century]
- Genesis scrolls

16. The 'Eastern' Biblical bookhand of the 7<sup>th</sup> or 8<sup>th</sup> century:

- Cambridge University (T-S NS 3.21)
- Scribe embellished, sacred, angled.

- Synagogue of Meroth [7th or 8th]

- Specific letters ፩, ፻

- Bodleian Library in Oxford - Babylonian Vowelization.

17. The 12<sup>th</sup> century semi-cursive 'Eastern' script from Egypt

- Manuscript from Fostat (old Cairo)

- Flat culamus, concave, no ornamentals, or ligatures.

18. The 15<sup>th</sup> century 'Eastern' script from Balkhara

- Books of Balkhara

- Curved, short, round

- Unique א(alef), ת(mem), ז(zayin), ה(het), נ(nun)

19. The Italian book-hand of the 11<sup>th</sup> or 12<sup>th</sup> century.

- Christian and Islamic hands

- Kaufmann 50

- Antiochopolis marriage contract

20. Ashkenazi book-hand of the 13<sup>th</sup> century

- quill or sharp pen

- Germany and France

- Guides

A. Manuscript of 1272

- Abraham Son of Jacob
- France, 1296

B. Ashkenazi Gothic

- Talmud 1343
- Middle-ages, Munich

21. The cursive Ashkenazi Script of the 15th century

- Two books, Palantine Library, in Parma, Italy

A. MS Parm 2707

- quill pen
- Medial Characters

B. MS Parm 3034

- Latin-esque.

- Medial characters, ligatures.

22. Sephardi book-hand of 13<sup>th</sup> century

- Calamus by quill
- Toledo 1241, 1222
- Sarajevo Haggadah
- Oxford Bodleian Library, Kennicott 7.

23. The Sephardi Semi-cursive of the 15<sup>th</sup> BCE

- Square, Arabic influence
- elaborate
- Torah manuscript (Ms Parm 2010)
- Assyrian, Mashiq, Moalig, Signature
- Bible, Talmud 1475.