

# A Simplified Version of Biblical Hebrew Verb Paradigms: **A Periodic Table Approach**

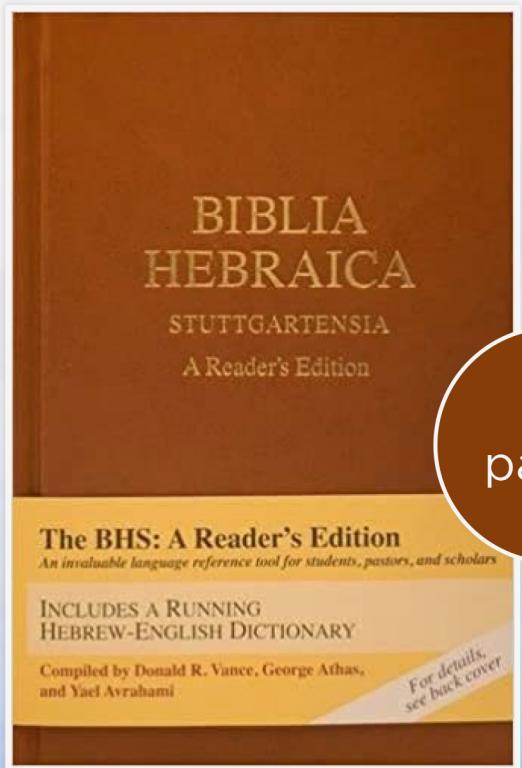
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**Melak Alemayehu Tsegaw**

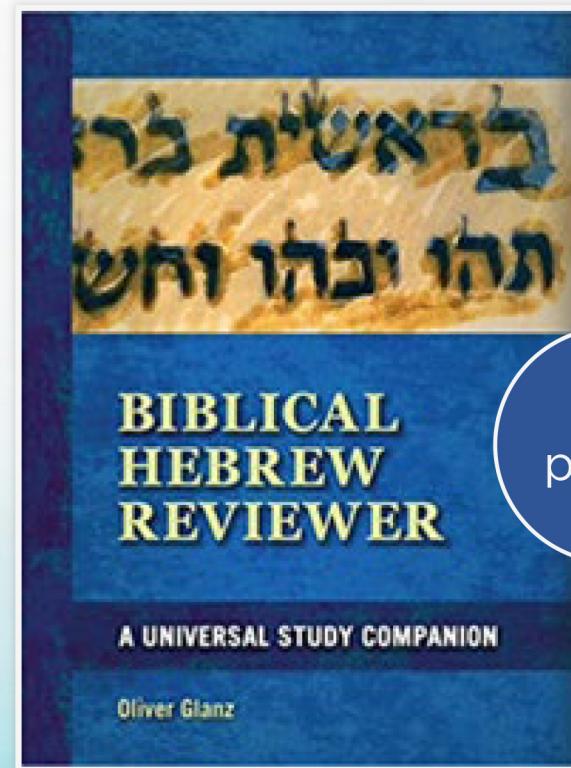
Adventist University of Africa



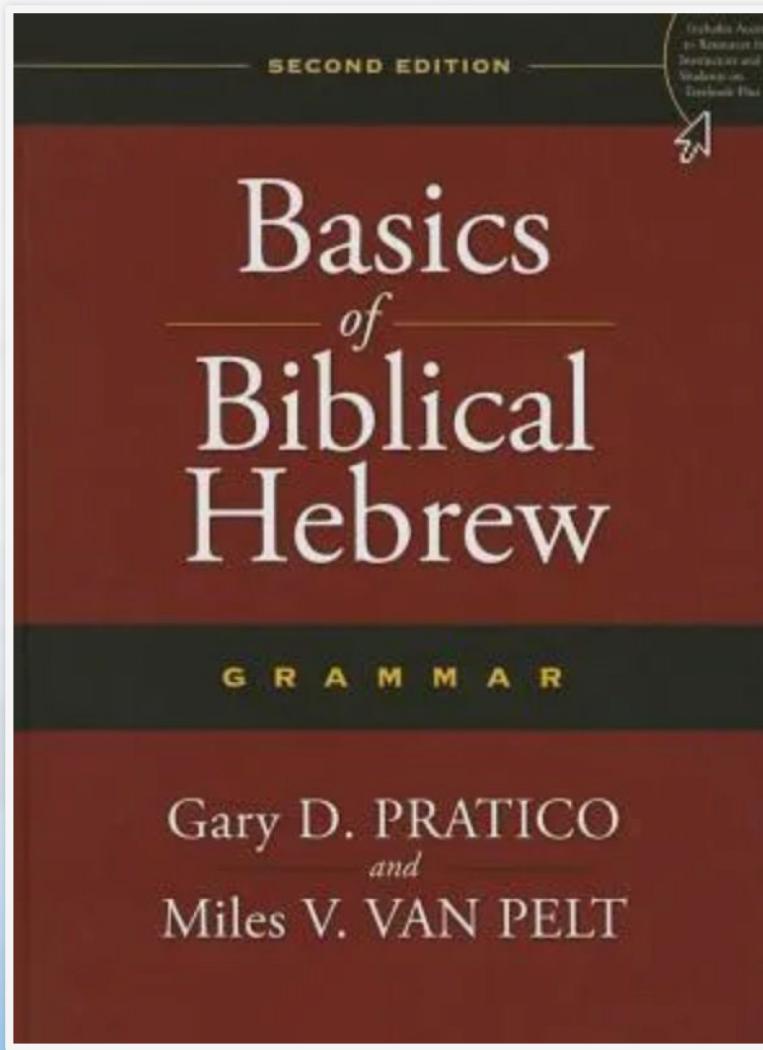
# COMPREHENSIVE PRESENTATION OF BH PARADIGMS



**Biblia Hebraica Stuttgartensia:  
A Reader's Edition**



**Biblical Hebrew Reviewer:  
A Universal Study Companion**



# The Challenges of Using the Traditional Paradigms approach

- Students feel overwhelmed and even discouraged at times.
- Students will soon discover that there are significant number of weak verbs that they can not simply parse with the help of the strong verb paradigms on which they spend most of their time.

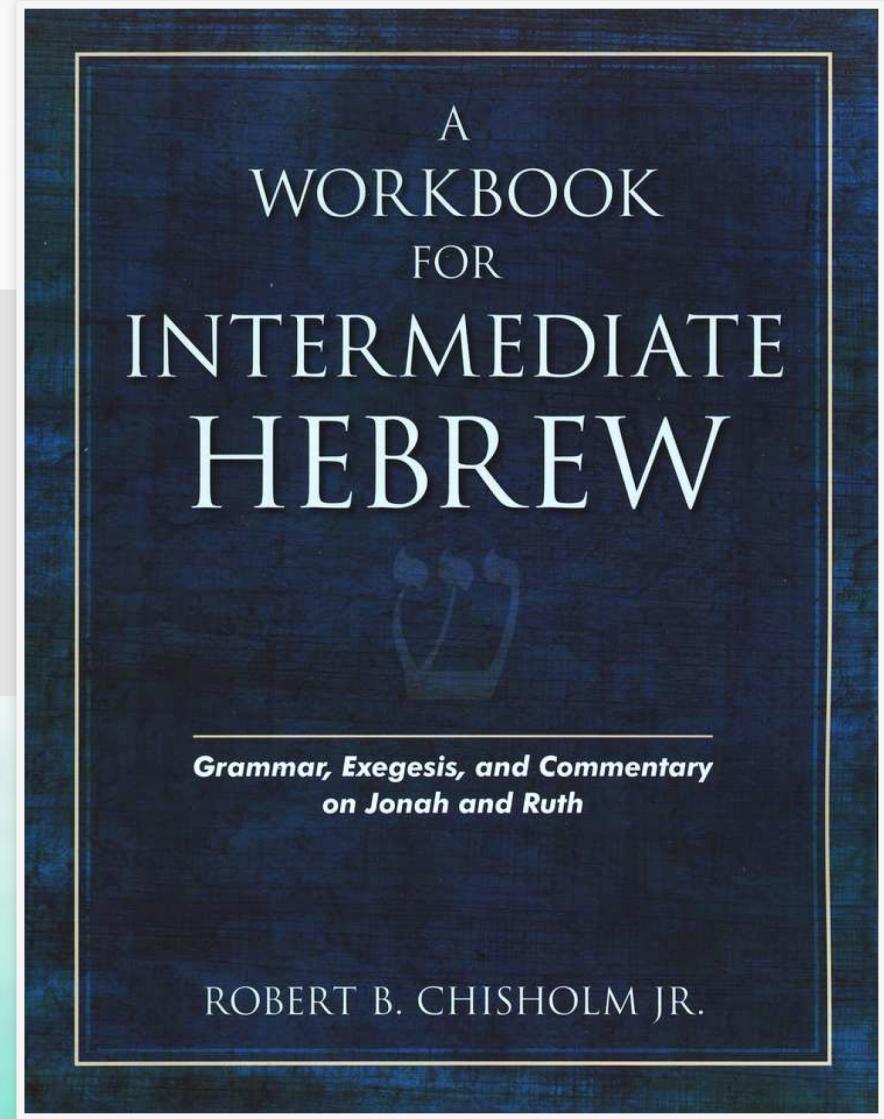
# The Challenges of Using the Traditional Paradigms approach

- Students should first be able to know the root letters and the stem to consult the right table. And this poses a great challenge for beginners.
- When one of the three consonants drops or assimilates, it will be more difficult to identify which paradigm to use.

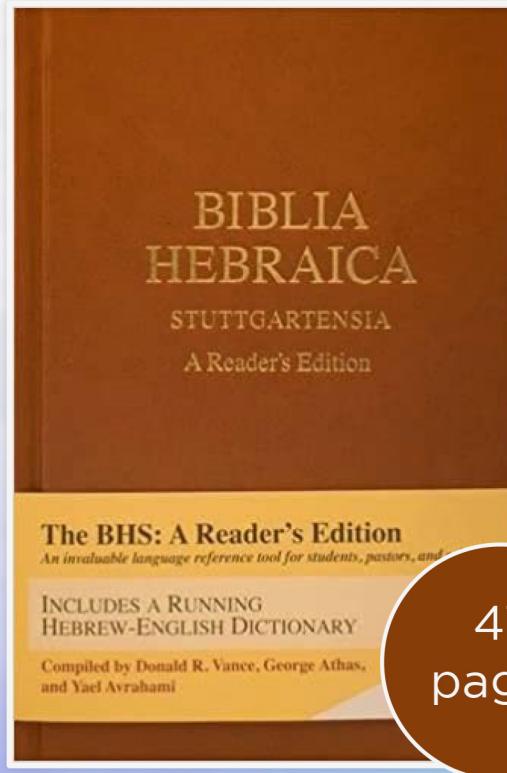
# The Challenges of Using the Traditional Paradigms approach

- Similar preformatives of different stems and conjugations require students to refer several tables.
- Most of the tables does not show the changes that occur when a verb comes with objective suffixes.
- The tables contain unattested forms that are of no use for the parsing of the BH text.

# Another Approach(es)



# The Periodic Table Approach



N	M	L	K	J	I	H	G	F	E	D	C	B	A
V <sub>1</sub>	PTP Q PRF OS 2mp/fp	Q IMV/INC 2m/fp Q PRF 2m/fp	-: I-Gu										D IMV II-1 INC G Q
V <sub>1</sub>	Q PRF 2mp/fp	Dp PER V2-a											D PRF C2-D,F D IMV Q PTA V2-1 T Q INA V2-1
V <sub>1</sub>	Q IMV ms/fp Q INC	Q PTA Q IMV/INC G	Q PRF INC IMV	Q PRF B INC	Dp PER Q IMV B								D PRF B/G Q PRF T Q IMV I-3
tD	Pf תְּנָא IMP	Pf תְּנָא IMP	Pf תְּהַת PER	Pf תְּהַת WC									
P דִּבֶּר D	Dp PTA D PTA V1-a H PTA B		H PTA I-3	H PTA I-3	H PTP PTD B/G	H PTP B/G							
Pf נִנְנָה													
DEF-נִ INT-נִ													
Pf נִנְנָה													
5													
Pf נִנְנָה													
4													
Pf נִנְנָה													
Pf נִנְנָה													
3													
Pf נִנְנָה													
2													
Pf נִנְנָה													
1													
OS	PRF 3ms PTA Ø ms IMP/V 2ms												

**THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS**  
Melak A. Tsegaw, PhD

This diagram illustrates the Periodic Table of Hebrew Verb Diagnostics, mapping verb forms across a grid of stems and conjugations.

**Key:**

- Stems:** N (Nifal), N (Nifal), N (Nifal), PTA (Participle Active), PTA (Participle Active), PTA (Participle Active), IMP (Imperative), IMP (Imperative), IMP (Imperative), PRF (Perfect), PRF (Perfect), PRF (Perfect), 2MS (Second Person Singular), 2FS (Second Person Feminine Singular), 2FP (Second Person Feminine Plural), 2MP (Second Person masculine Plural), 1CP (First Person Plural).
- Conjugations:** Vowel (Ghershet), Other diagnostic info.
- Color Coding:**
  - Red: Regular forms.
  - Blue: Hif'il.
  - Green: Waw-consecutive.
  - Yellow: Imperfect.
  - Orange: Hiph'il.
  - Grey: No prefix (V1).
  - Light Blue: Impersonal.
  - Light Green: Suffixative.
  - Light Orange: Hiph'il.
  - Light Yellow: Hif'il.
  - Light Grey: No suffix (V2).

**Legend:**

- I - First Root letter
- II - Second Root letter
- III - Third Root letter
- a - a class vowels
- B - B-ll-γ/ḥ
- D - Dpiel
- DEF - Definite Article
- H - Hif'il
- i - i class vowels
- IMP - Imperative
- GU - Guttural
- INA - Infinitive Absolute
- INC - Infinitive Construct
- INT - Interrogative Particle
- N - Nifal
- OS - Objective Suffix
- PRF - Perfect
- PTA - Participle Active
- PP - Participle Passive
- P - Prefix
- PF - Verbal Preformative
- PV - Preformative Vowel
- Q - Qal
- Qal - qamets hatuph
- Q - u class vowels
- q - qamets
- PF 1 - hiph'il
- PF 2 - hif'il
- PF 3 - waw-consecutive
- PF 4 - suffixative
- PF 5 - impersonal
- PF 6 - hiph'il
- PF 7 - hif'il
- PF 8 - waw-consecutive
- PF 9 - suffixative
- PF 10 - impersonal
- PF 11 - hiph'il
- PF 12 - hif'il
- PF 13 - waw-consecutive
- PF 14 - suffixative
- PF 15 - impersonal
- PF 16 - hiph'il
- PF 17 - hif'il
- PF 18 - waw-consecutive
- PF 19 - suffixative
- PF 20 - impersonal
- PF 21 - hiph'il
- PF 22 - hif'il
- PF 23 - waw-consecutive
- PF 24 - suffixative
- PF 25 - impersonal
- PF 26 - hiph'il
- PF 27 - hif'il
- PF 28 - waw-consecutive
- PF 29 - suffixative
- PF 30 - impersonal
- PF 31 - hiph'il
- PF 32 - hif'il
- PF 33 - waw-consecutive
- PF 34 - suffixative
- PF 35 - impersonal
- PF 36 - hiph'il
- PF 37 - hif'il
- PF 38 - waw-consecutive
- PF 39 - suffixative
- PF 40 - impersonal
- PF 41 - hiph'il
- PF 42 - hif'il
- PF 43 - waw-consecutive
- PF 44 - suffixative
- PF 45 - impersonal
- PF 46 - hiph'il
- PF 47 - hif'il
- PF 48 - waw-consecutive
- PF 49 - suffixative
- PF 50 - impersonal
- PF 51 - hiph'il
- PF 52 - hif'il
- PF 53 - waw-consecutive
- PF 54 - suffixative
- PF 55 - impersonal
- PF 56 - hiph'il
- PF 57 - hif'il
- PF 58 - waw-consecutive
- PF 59 - suffixative
- PF 60 - impersonal
- PF 61 - hiph'il
- PF 62 - hif'il
- PF 63 - waw-consecutive
- PF 64 - suffixative
- PF 65 - impersonal
- PF 66 - hiph'il
- PF 67 - hif'il
- PF 68 - waw-consecutive
- PF 69 - suffixative
- PF 70 - impersonal
- PF 71 - hiph'il
- PF 72 - hif'il
- PF 73 - waw-consecutive
- PF 74 - suffixative
- PF 75 - impersonal
- PF 76 - hiph'il
- PF 77 - hif'il
- PF 78 - waw-consecutive
- PF 79 - suffixative
- PF 80 - impersonal
- PF 81 - hiph'il
- PF 82 - hif'il
- PF 83 - waw-consecutive
- PF 84 - suffixative
- PF 85 - impersonal
- PF 86 - hiph'il
- PF 87 - hif'il
- PF 88 - waw-consecutive
- PF 89 - suffixative
- PF 90 - impersonal
- PF 91 - hiph'il
- PF 92 - hif'il
- PF 93 - waw-consecutive
- PF 94 - suffixative
- PF 95 - impersonal
- PF 96 - hiph'il
- PF 97 - hif'il
- PF 98 - waw-consecutive
- PF 99 - suffixative
- PF 100 - impersonal

# The Periodic Table Approach

**THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS**  
Melak A. Tsegaw, PhD

**Conjugations**

**Stems**

**Conjugations**

**Other diagnostic info**

**INC**

**PTA**

**IMV/IMP**

**PRF**

**2ms**

**3ms**

**3MS**

**3MP**

**2/3 FP**

**2FS**

**3CP**

**2/3 MP IMP**

**ICS**

**3FS**

**2MS**

**2FS**

**2FP**

**2MP**

**1CP**

**Hitpael**

**No Prefix (V1)**

**Pf י**

**Imperfect/Waw-Consecutive**

**Pf י**

**Suffixatives**

**Pf י**

**Pronominal Suffixes**

I - First Root letter  
II - Second Root letter  
III - Third Root letter  
a - a class vowels  
B - II- י/י  
D - Piel  
DEF - Definite Article  
D.F - Dagesh Forte  
Dp - Pual  
G - II=III  
Gu - Guttural  
H - Hifil  
i - i class vowels  
IMP - Imperfect  
IMV - Imperative  
INA - Infinitive Absolute  
INC - Infinitive Construct  
INT - Interrogative Particle  
N - Nifal  
OS - Objective Suffix  
PRF - Perfect  
PTA - Participle Active  
PTP - Participle Passive  
P - Prefix  
Pf - Verbal Preformative  
PV - Preformative Vowel  
Q - Qal  
qh - qamets hatuph  
tD - Hitpael  
V1 - Vowel of First Root

# Rows 1 and 2

**THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS**  
Melak A. Tsegaw, PhD

SUFFIXES	INC	PTA		IMV/IMP				PRF						
	2	FP <b>וְתִ</b> FSC/INC	MP <b>וְיִם</b> MPC	2FS <b>וְיִ</b>	2/3 FP <b>וְנָהּ</b>	3CP <b>וְהַ</b>	PRF <b>וְ</b> 2/3 MP IMP	ICS <b>וְתִי</b>	3FS <b>וְהָתִי</b> Cohortative	2MS <b>וְתָתִי</b>	2FS <b>וְתִי</b>	2FP <b>וְתִי</b>	2MP <b>וְתִים</b>	1CP <b>וְנוּ</b>
1 OS	PRF <b>וְתִ</b> 3ms	PTA <b>וְתִ</b> ms				3MP <b>וְהַמִּ</b>	3FP <b>וְתִי</b>	3FS <b>וְהָתִי</b>	2MS <b>וְתָתִי</b>	2FS <b>וְתִי</b>	2FP <b>וְתִי</b>	2MP <b>וְתִים</b>	1CP <b>וְנוּ</b>	

SUFFIXES	2	FP <b>וְתִ</b> FSC/INC	MP <b>וְיִם</b> MPC	2FS <b>וְיִ</b>	2/3 FP <b>וְנָהּ</b>	3CP <b>וְהַ</b>	PRF <b>וְ</b> 2/3 MP IMP	ICS <b>וְתִי</b>	3FS <b>וְהָתִי</b> Cohortative	2MS <b>וְתָתִי</b>	2FS <b>וְתִי</b>	2FP <b>וְתִי</b>	2MP <b>וְתִים</b>	1CP <b>וְנוּ</b>
SUFFIXES	1 OS	PRF <b>וְתִ</b> 3ms	PTA <b>וְתִ</b> ms				3MP <b>וְהַמִּ</b>	3FP <b>וְתִי</b>	3FS <b>וְהָתִי</b>	2MS <b>וְתָתִי</b>	2FS <b>וְתִי</b>	2FP <b>וְתִי</b>	2MP <b>וְתִים</b>	1CP <b>וְנוּ</b>

I - First Root letter	D - Piel	Gu - Guttural	INA - Infinitive Absolute	PRF - Perfect	PV - Preformative Vowel	V2 - Vowel of Second Root
II - Second Root letter	DEF - Definite Article	H - Hifil	INC - Infinitive Construct	PTP - Participle Perfect	Q - Qal	u - u class vowels
III - Third Root letter	D.F - Dagesh Forte	i - i class vowels	INT - Interrogative Particle	PTA - Participle Active	q - qamets hatuph	ø - No Sufformative
a - a class vowels	Dp - Pual	IMP - Imperfect	IMV - Imperative	P - Prefix	p - patah	• - hireq
B - II-γ	G - II-III	OS - Objective Suffix	N - Nifal	Pf - Verbal Preformative	Pf - Hitpael	V1 - Vowel of First Root

Hitpael	No Prefix (V1)
Pf יְ	Imparf/ Waw-Consecutive
Pf יִ	Sufformatives
Pf הְ	Pronominal Suffixes

# Rows 3 to 6

**THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS**  
Melak A. Tsegaw, PhD

Conjugations

N	M	L	K	J	I	H	G	F	E	D	C	B	A
10 V <sub>1</sub>	PTP PRF OS Q PRF 2m/fp	Q IMV/INC 2m/fp I-Gu											D IMV II-ה T INC G qh Q IMV
9 V <sub>1</sub>	PRF 2mp/fp	Dp PER V <sub>2-a</sub>								D PRF C2-D.F N PRF I-ה D INA/C	D IMV Q PTA V <sub>2-ה</sub> T INA V <sub>2-ה</sub>		
			O IMV -mp/fp	O PTA	O PRF	O INT	O IMV -mp/fp	O PTA	O PRF B/G	O INT	O IMV		

P Pf מִם 6 Pf מ H PTA B	Dp PTA V <sub>1-a</sub> D PTA		Pf מ H PTA I-ה	Hp PTP Pf מ I-ה Hp PRF B/G	Pf מ H PTP								
DEF-ה INT-ה Pf ה			H IMV/INC I-ה Hp PRF PRF I-ה	Hp PRF B/G Hp B/G I-ה	H PRF B/G H INT								
5			H IMP I-ה H Q IMP I-ה	N PTA PRF I-ה N PTA PRF I-ה									
Pf י 4 Pf י			H IMP I-ה H Q IMP I-ה										
Pf י 3 Pf י	Q/H [OS] מְהֻנָּה Dp D [V1-u] [V1-a]	H IMP I-ה Q IMP I-ה	H IMP I-ה Q IMP I-ה	Hp B H I-ה	Hp B/G H I-ה	Q/H [OS] B/G D Pf נ	Q H D	H IMP I-ה Q IMP I-ה	Q Pf נ/ה/ Q Pf נ[V1-ה]	Q I-ה/B N Pf נ[V1-ה]	Q Pf י N [V1-ה]	Q I-ה H IMP I-ה	Q B/G H qh [V1-i] B/G

Legend:

- X E S
- 1 OS
- PRF PTA ms ms
- INT Dms ms
- 1CS
- 1MS
- 3MS
- 3MP
- 3FP
- 3FS
- 2MS
- 2FS
- 2FP
- 2MP
- 1CP

Key:

- I - First Root letter
- II - Second Root letter
- III - Third Root letter
- a - a class vowels
- B - II-י/ה
- D - Piel
- DEF - Definite Article
- INT - Interrogative Particle
- IMP - Imperfect
- IMV - Imperative
- OS - Objective Suffix
- Gu - Guttural
- H - Hifil
- i - i class vowels
- IMP - Imperfect
- IMV - Imperative
- INA - Infinitive Absolute
- INC - Infinitive Construct
- N - Nifal
- P - Prefix
- Pf - Verbal Preformativ
- PRF - Perfect
- PTA - Participle Active
- PTP - Participle Passive
- PV - Preformativ Vowel
- Q - Qal
- qh - qamets hatuph
- Td - Hitpael
- V1 - Vowel of First Root
- V2 - Vowel of Second Root
- u - u class vowels
- Ø - No Sufformative
- - hireq
- The red colored letters in the boxes indicate regular forms

Color Key:

- Hitpael
- No Prefix (V)
- Imperfect/Waw-Consecutive
- Sufformatives
- Pronominal Suffixes
- Pf י

# Row 7

N	M	L	K	J	I	H	G	F	E	D	C	B	A
10 V1	PTP • Q PRF OS	Q IMV/INC 2m/fp —: I-Gu Q PRF 2m/fp											D IMV II-ג T INC IMV G qh Q PTA V2-ג
9 V1	Q PRF • 2mp/fp	Dp PER V2-a											D PRF C2-D-F • N PRF I-ג D INA/C D IMV
8 V1	Q PTA • Q INC	Q PTA B IMV INC	Q PRF B IMV INC	Q PRF B IMV INC	Dp PER • Q IMV B								Q PTA V2-ג T INC IMV G qh Q PTA V2-ג
tD 7	Pf אָתָּה IMP	Pf נָתַּתְּ IMP	Pf הָתַּתְּ PER		Pf וְתַּתְּנִיתְּ WC								

THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS  
Melak A. Tsegaw, PhD

Conjugations  
Stems  
Vowel (hireq)  
Other diagnostic info

tD 7	Pf אָתָּה IMP	Pf נָתַּתְּ IMP	Pf הָתַּתְּ PER	Pf וְתַּתְּנִיתְּ WC								
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Pf אָתָּה 3 Dp נָתַּתְּ [V1-u] [V1-a]	Q/H [OS] B/G • Q	I-R I-Q I-S	I-P I-Q I-S	I-P • D PTA-N I-Q	Q/H [OS] B/G • Q	I-R I-Q I-S	I-P • D PTA-N I-Q	I-P • Q/H [OS] B/G • Q	I-R I-Q I-S	I-P • Q/H [OS] B/G • Q	I-R I-Q I-S	I-P • Q/H [OS] B/G • Q	
SUFF I-XES	2 FSC/INC	MP MPC	2FS I-S	2/3 FP I-S	3CP 2/3 MP IMP	PRF I-Q	ICS I-Q	3FS Cohortative	2MS I-Q	2FS I-Q	2FP I-Q	2MP I-Q	1CP I-Q
1 OS	PRF 3ms PTA Ø ms IMP/V 2ms			נִי 1CS	נִה 3MS	נִמ 3MP	נִו 3FP	נִז 3FS	נִת 2MS	נִת 2FS	נִת 2FP	נִת 2MP	נִת 1CP

I - First Root letter  
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a - a class vowels  
B - II-γ  
DEF - Definite Article  
D.F - Dagesh Forte  
Dp - Pual  
G - II=III  
Gu - Guttural  
H - Hifil  
I - i class vowels  
IMP - Imperfect  
IMV - Imperative  
INC - Infinitive Absolute  
INT - Interrogative Particle  
N - Nifal  
OS - Objective Suffix  
PRF - Perfect  
PTA - Participle Active  
PTP - Participle Passive  
P - Prefix  
Pf - Verbal Preformative  
V1 - Vowel of First Root  
V2 - Vowel of Second Root  
u - u class vowels  
Ø - No Suffixative  
• - hireq  
The red colored letters in the boxes indicate regular forms

Hitpael      No Prefix (V1)  
Pf יְהִי      Imperf/ Wav-Consecutive  
Pf יְהִי      Sufformatives  
Pf יְהִי      Pronominal Suffixes

# Rows 8 to 10

N	M	L	K	J	I	H	G	F	E	D	C	B	A
10 V1	PTP Q PRF OS	Q IMV/INC 2m/fp Q PRF 2m/fp	-: I-Gu										D IMV II-7 T INC IMV G qh Q

THE PERIODIC TABLE OF HEBREW VERB DIAGNOSTICS

Melak A. Tseqaw, PhD

10 V1	PTP Q PRF OS	Q IMV/INC 2m/fp -: I-Gu			
9 V1	Q PRF 2mp/fp	Dp PER V2-a			
8 V1	Q IMV ms/fp Q INC	Q PTA IMV	Q PRF INC	Q PRF INC	Dp PER B

D IMV II-7 T INC IMV G qh Q	D PRF C2-D.F N PRF I-1	D IMV D INA/C	D PTA V2-1 Q INA V2-1
Q IMV Q INC	D PRF II-Gu Q Q INC IMV I-1	Q IMV mp/fs Q INC I-1	Q PRF B/G Q IMV II-Gu
Q INC	Q INC IMV I-1	Q INC I-1	Q PRF Q IMV I-1



INC		PTA		IMV/IMP		PRF							
S U F F	2	FP נִנְ	MP מִיּוֹ	2FS יָ	2/3 FP נֶ	3CP PRF יַ	ICS תִּ	3FS הַ	2MS תֵּ	2FS תָּ	2FP תַּ	2MP תָּם	1CP גַּ
I X E S	1 OS	PRF 3ms PTA ○ ms IMP/V	3ms MPC	1CS יִ	3MS יְ	3MP יַ	3FP יִ	3FS יְהִ	2MS יֵ	2FS יָהִ	2FP יְהַ	2MP יְהָמָ	1CP גַּהֲ

I - First Root letter  
II - Second Root letter  
III - Third Root letter  
a - a class vowels  
B - II-γ

D - Piel  
DEF - Definite Article  
D.F - Dagesh Forte  
Dp - Pual  
G - II-III

Gu - Guttural  
H - Hifil  
I - i class vowels  
IMP - Imperfect  
IMV - Imperative

INA - Infinitive Absolute  
INC - Infinitive Construct  
INT - Interrogative Particle  
N - Nifal  
OS - Objective Suffix

PRF - Perfect  
PTA - Participle Active  
PTP - Participle Passive  
P - Prefix  
Pf - Verbal Preformative

PV - Preformative Vowel  
Q - Qal  
qh - qamets hatuph  
tD - Hitpa'el  
V1 - Vowel of First Root

V2 - Vowel of Second Root  
u - u class vowels  
∅ - No Suffixative  
● - hireq  
The red colored letters in the boxes indicate regular forms

Hitpa'el  
Pf II  
Pf I  
Pf N  
No Prefix (V1)  
Imperfect/Wav-Consecutive  
Pf J  
Pf N  
Pronominal Suffixes

# Recommended Steps

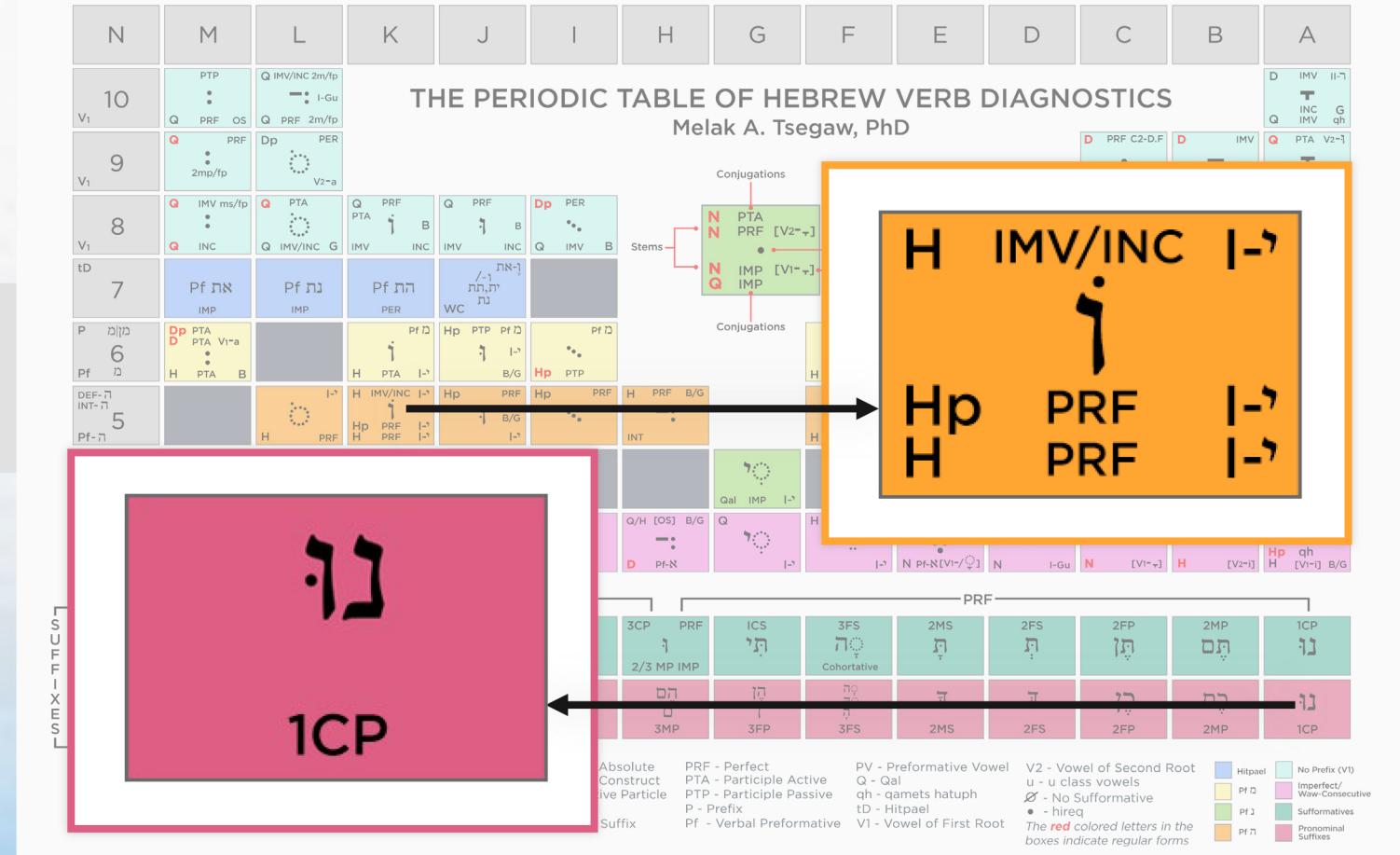
- **Step 1** - Check if suffixes of Row 1 and/or Row 2 are present
- **Step 2** - Check if the verb comes with a preformative and use the row that matches (Rows 3-7).
- **Step 3** - Check if the verb is without a preformative and focus on Rows 8-10.

# Examples

דבר

# Examples

הוֹשְׁעָתָנוּ

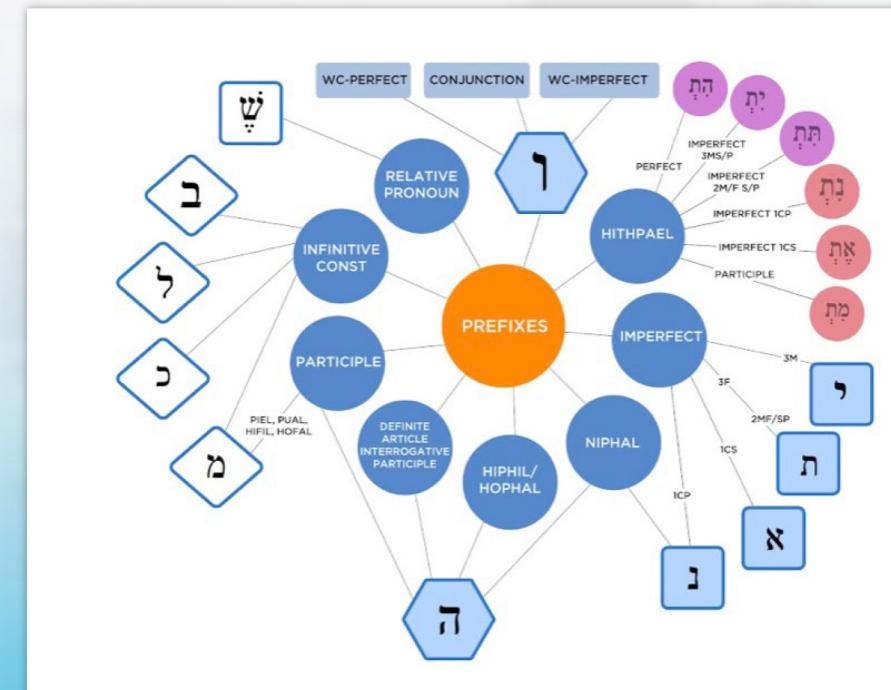
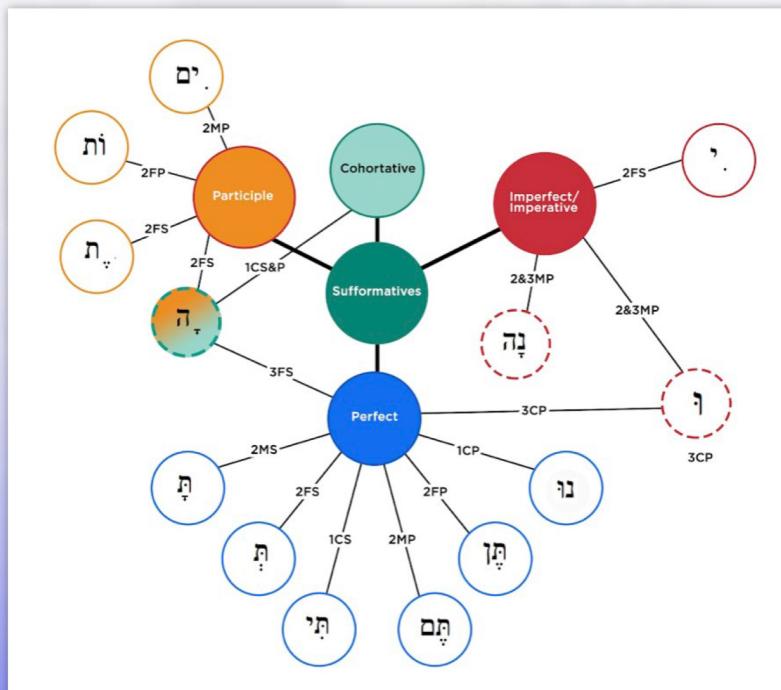


# **Pedagogical Advantages of the Periodic Table Approach**

# Pedagogical Advantages of the Periodic Table Approach

## Recognition

## Suffixes and Prefixes



# Pedagogical Advantages of the Periodic Table Approach

## Recognition

Similar forms

**THE PERIODIC TABLE OF HEBREW**  
Melak A. Tsega

Legend:

- Hitpael
- No Prefix (V)
- PF D
- Imperfect/Waw-Consecutive
- PF J
- Suffixives
- PF N
- Pronominal Suffixes

Key:

- II - Second Root letter
- DEF - Definite Article
- H - Hirsh
- i - i class vowels
- NA - Infinitive Absolute
- PRF - Perfect
- PV - Preformative Vowel
- V2 - Vowel of Second Root
- III - Third Root letter
- D - Dagesh Forte
- DF - Dagesh Forte
- DF - Dagesh Forte
- u - u class vowels
- INC - Infinitive Construct
- PTA - Participle Active
- Q - Qal
- Q - qamets hatuph
- a - a class vowels
- INT - Interrogative Particle
- PTP - Participle Passive
- tD - Hitpael
- B - B - y
- IMP - Imperfect
- N - Nifal
- P - Prefix
- V1 - Vowel of First Root
- IMV - Imperative
- OS - Objective Suffix
- Pf - Verbal Preformative
- 2/3 FP
- 3CP
- PRF
- ICS
- 3FS
- 2MS
- 2FS
- 2FP
- 2MP
- 1CP
- 2/3 MP IMP
- 3MP
- Cohortative
- 3FP
- 2MS
- 2FS
- 2FP
- 2MP
- 1CP

# Pedagogical Advantages of the Periodic Table Approach

## Recognition

ר-י

ג-ב

ו/ו=ו

ו=ו

ו-ו

# **Pedagogical Advantages of the Periodic Table Approach**

## **Retention**

# **Student's Testimonial**

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**John Aubrey De Villiers**

**Obvious Bukhos Mpofu**

**Enock Sambongo**

# Conclusion

Work-in-Progress

