DIGITAL DIVERSIONS

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Letter digitalization converts the letters of a word into their alphanumerical values (A=1, B=2…Z=26) and then breaks down the barriers between and within the resulting numbers to reveal a string of digits. Thus the word WORD 23,15,18,4 has the digit string 2315184. Digitalized words are interesting for numerous reasons. The word CADET, for example (3,1,4,5,20) is made of the digits 012345, as also is the word CENT (3,5,14,20).

Throughout this article, none of the whole word digital generic sequences derive from a word whose letters make a letter sequence of the same genre. Thus, BABA 2,1,2,1 is not admitted as a digital tautonymic sequence and FED 6,5,4 is not admitted as a numerically regressive sequence of digits. The word may, however, make a letter sequence of a different genre…the word IRISES 9,18,9,19,5,19 is made of a digital ladder sequence 918.919.519, whilst the letters of IRISES form a Memnon sequence (letter pattern aba.cdc). KAFKA 11,1,6,11,1 makes a digital palindrome whilst its letters make a Miami word.

The digital generic sequences are coded as follows:
P = palindromic; T = tautonymic; M = Miami; L = Ladder; DD = double double.
I = Isogram (pair isogram unless specified otherwise);
Unreferenced words can be found in the Oxford English Dictionary, Second Edition.
Locations are taken from the United States Board on Geographic Names (pp = populated place).
Other references: *DBS* = The Dictionary of the Biological Sciences by Peter Gray, 1967;
cham = Chambers Dictionary; *nz* = Nomenclator Zoologicus; *web2/3* = Webster's Second/Third Edition

WORDS WITH A RESTRICTED NUMBER OF DIFFERENT DIGITS

A. WORDS WITH THE SAME DIGIT REPEATED (homodigitals or unidigitals)

KAKKAK 11,1,11,11,1,11 (WW91243 a Guam bittern *web3*) seems to be a contender for the longest homodigital.

B. WORDS WITH A DIGITAL STRING OF 2 DIFFERENT DIGITS (bidigitals)

The most interesting bidigitals are those which use all the letters available for the digits under consideration. These are asterisked*.

1. Binary digitals can be used to describe those bidigitals which consist of the two digits 0 and 1.

AJAKJAK* 1,10,1,11,10,1,11 (pp in Nigeria) AJAJA 1,10,1,10,1 (the roseate spoonbill)

2. Other Bidigitals

A list of words made of the two digits 1 and 2 appears in WW91243.

BTT 2,20,20 (Btt Tariq is a mountain in Lebanon)
BALAKLAVA 2,1,12,1,11,12,1,22,1 (see 'dug-out' 2 a. 1855 citation) BAULK 2,1,21,12,11
CAMMAKA* 3,1,13,13,1,11,1 (a fine cloth)
KANNADA* 11,1,14,14,1,4,1 (a native, also the language, of Kanara)
NDANKANDAKA* 14,4,1,14,11,1,14,4,1,11,1 (stream in Fiji)
KOEKOEA* 11,15,5,11,15,5,1 (the NZ cuculid bird = long-tailed cuckoo *DBS*)
KPAFA* 11,16,1,6,1 (pp in Ghana) GQAKA* 7,17,1,11,1 (pp in South Africa)
KHARKHARAH* 11,8,1,18,11,8,1,18,1,8 (fort in Iraq)
KASKASKIA* 11,1,19,11,1,19,11,9,1 SAKI* 19,1,11,9 BEVVY* 2,5,22,22,25

C. DOUBLE DOUBLES

Digital double doubles consist of *two adjacent doubled digits.*

ALB 1,12,2 (a variety of the surplice) BUA 2,21,1 (to get ready) AND 1,14,4
KEE 11,5,5 (key) EEK 5,5,11 ARH 1,18, 8 (var. of 'argh')
KII 11,9,9 (peninsula in Japan) BYE 2,25,5 and VEE 22,5,5 are digital charades (see A. below)

D. TRIPLE DOUBLES

There are many words made of just three different digits but digital triple doubles are special. They consist of *three adjacent doubled digits.*

ALYE 1,12,25,5 (ally) and ALBEE 1,12,2,5,5 (surname) consist of the same digits in the same order. They are digital charades.

Similarly, BUND 2,21,14,4 (in India, any artificial embankment, a dam, dyke or causeway) and VAND 22,1,14,4
BURH 2,21,18,8 (borough) BUSI 2,21,19 9 (busy) \ (wand) are digital charades.

WORDS WITH THE SAME DIGITS

A. CHARADES

In digital charades, *the same digits occur in the same order in 2 or more different words. The words have at least one letter which is different.* In some cases, the 2 words do not share any letters.

In WW89178, Tom Pulliam offered the 7-digit examples ABOVE 1,2,15,22,5 - LOVE 12,15,22,5 and BABUL 2,1,2,21,12 - UVAL 21,22,1,12.

Here are two 8-digit examples:

ACORN 1,3,15,18,14 - MORN 13,15,18,14

AISLED 1,9,19,12,5,4 and SAILED 19,1,9,12,5,4 are letter transposals.

More than 2 words:

121514 LOAD 12,15,1,4 - LON 12,15,14 - AUEN 1,21,5,14 (own)
1415 ADO 1,4,15 - NO 14,15 - NAE 14,1,5 (no)
2514 BEAD 2,5,1,4 - BEN 2,5,14 - YAD 25,1,4 (old past tense of 'go') - YN 25,14 (inn)
141518 NOAH 14,15,1,8 - NOR 14,15,18 - ADOR 1,4,15,18 - NAER 14,1,5,18 (near)
12125 ABLE 1,2,12,5 - LABE 12,1,2,5 - LAY 12,1,25 - AUY 1,21,25 (well in Western Sahara)
ABLE and LABE are letter transposals.

B. REVERSALS

In digital reversals, *the second word uses the digits of the first word in reverse order.* A list of eight digital reversals appears in WW 89178, ABULIA 1,2,21,12,9,1 - SULU 19,21,12,21 having the most digits. Here are some additions. Note that CALM and CLAM are letter transposals, as are LLAMA and MALLA.

BY 2,25 - EBB 5,2,2 CAR 3,1,18 - HAM 8,1,13
CALM 3,1,12,13 - CLAM 3,12,1,13 EDAM 5,4,1,13 - CANE 3,1,14,5
DOCK 4,15,3,11 - AMEN 1,13,5,14 LAMB 12,1,13,2 - WALA 23,1,12,1 (valley)
ARAN 1,18,1,14 - DARK 4,1,18,11 EBOR 5,2,15,18 - HOLE 8,15,12,5
LLAMA 12,12,1,13,1 - MALLA 13,1,12,12,1 (surname - see Newar 1972 citation) matches ABULIA - SULU in having 8 digits.

C. TRANSPOSALS

In digital transposals, *the same digits occur in different orders in different words.* This first set of transposals uses the digits **1245**:

LED 12,5,4 - OX 15,24 - BADE 2,1,4,5 - DUE 4,21,5 - AXE 1,24,5 - DAY 4,1,25 - BEN 2,5,14 - BOD 2,15,4 - NY 14,25 (var. nye, a brood of pheasants)

In WW89177, Tom Pulliam found 8 words made from the ten digits **0111122259**. They are JOVIAL, LOTUS, BUSKET, SALUTE, SALLET, OBLAST, TUSKY and ASTABLE.

Below, I offer 22 non-locational words plus 11 locations, 33 words in total, all made from the 8 digits

11112589. The first 2 words appear as digital transposals in WW89051.
AERIAL 1,5,18,9,1,12 - SOUR 19,15,21,18 - RUIKE 18,21,9,11,5 (rook - bird) - BOARS 2,15,1,18,19 - UREAS 21,18,5,1,19 - ABRASE 1,2,18,1,19,5 - LORS 12,15,18,19 - ORIAL 15,18,9,1,12 - EARLS 5,1,18,12,19 - BARKIE 2,1,18,11,9,5 (a small ship) - ASURE 1,19,21,18,5 (azure) - IKARY 9,11,1,18,25 - SHAKY 19,8,1,11,25 - SHOAL 19,8,15,1,12 - SARAY 19,1,18,1,25 (var. serai) - KIAYAH 11,9,1,25,1,8 (a Turkish viceroy) - SHEUK 19,8,5,21,11 (shook) - SKYR 19,11,25,18 (a kind of curd) - HELKS 8,5,12,11,19 (huts) - ASAHEL 1,19,1,8,5,12 (see capret, 1382 citation) - LIKER 12,9,11,5,18 - KERBS 11,5,18,2,19

ABOSHA 1,2,15,19,8,1 (pp in Cyprus) - HEKALI 8,5,11,1,12,9 (pp in Albania) -
AHAIKEB 1,8,1,9,11,5,2 (mountain in Sudan) - AAHUSE 1,1,8,21,19,5 (farms in Denmark) -
BOKSH 2,15,11,19,8 (pp in Yugoslavia) - KOHLI 11,15,8,12,9 (railroad station in India) -
LAOHAI 12,1,15,8,1,9 (pp in China) - HASAYA 8,1,19,1,25,1 (pp in Sudan) -
KAUEHI 11,1,21,5,8,9 (atoll in French Polynesia) - KUAIHE 11,21,1,9,8,5 (Kuaihe Shurku reservoir in China) -
OAHUS 15,1,8,21,19 (Oahu E Tolu, Oahu eranui, Oahu Rekakeke, Oahu roroa, and Oahu Sisi are all islands in Micronesia)

WORDS WHICH MAKE A DIGITAL GENERIC SEQUENCE

A. PALINDROMES

In digital palindromes, *the string of digits reads the same backwards as forwards*. Examples of digital palindromes appear in WW89178 and WW90175, the longest being INSULINS (9,14,19,21,12,9,14,19) offered by Tom Pulliam. Here are some shorter additions characterised by the use of just 2 different digits. Ekko is the surname of a character in Chaucer's *Clerk's Tale*.

JA 10,1 (the jay bird)
LABA 12,1,2,1 (R. in N. Caucasus) LUKALU 12,21,11,1,12,21 (hill in Uganda) BAAL 2,1,1,12
ULAL 21,12,1,12 (pp in Papua NG) BLAB 2,12,1,2 VABB 22,1,2,2 (reef in Finland)
BULB 2,21,12,2 MACACA 13,1,3,1,3,1 DAN 4,1,14
EO 5,15 (you) EKKO 5,11,11,15 PA 16,1
FAP 6,1,16 (drunk) QAGA 17,1,7,1 (pp in PNG) ARK 1,18,11
HAAR 8,1,1,18 RHA 18,8,1 (rhubarb) ASK 1,19,11
ASIK 1,19,9,11 (stream in Indonesia) KISK 11,9,19,11 (house in Finland) KIASK 11,9,1,19,11 (stream in \Canada)
EBBY 5,2,2,25 (having an ebb) and EVY 5,22,25 (heavy) are also digital charades.

B. TAUTONYMS

Digital tautonyms consist of *a group of 2 or more digits repeated one or more times*. Digital tautonyms have not been specifically commented upon in Word Ways as far as I am aware, although BALK 2,1,12,11 appears WW91243.

4 digits
LAB 12,1,2 MAC 13,1,3 NAD 14,1,4 (had not) AEO 1,5,15 (the stilt bird)
PAF 16,1,6 (an expression of contempt) RAH 18,1,8
AIS 1,9,19 (ace) and SAI 19,1,9 (S. American monkey) are also digital charades and letter transposals.
BAU 2,1,21 and BLA 2,12,1 are also digital charades. BEY 2,5, 25
DNA 4,14,1 EÖA 5,15,1 (see speer, 1866 citation) EYB 5,25,2 (pp in Germany)
HRA 8,18,1 (Buon Hra is a pp in Vietnam) ISA 9,19,1 (pp in Bahrain)

6 digits
AYLE 1,25,12,5 (ail) ABILI 1,2,9,12,9 (rapids in Gabon) MEACE 13,5,1,3,5 (mess *n.*)
BALK 2,1,12,11 BOUE 2,15,21,5 (bow *v.*)
BUVA 2,21,22,1 (pp in Mozambique) and BUBBA 2,21,2,2,1 (pp in Uganda) are also digital charades
BRUH 2,18,21,8 (the action of breaking, fracture. *fig* . the breaking or violation of a command, engagement etc.)
CAWL 3,1,23,12 CAICS 3,1,9,3,19 (Caic is a pp in both Ethiopia and Bosnia-Herzegovina)
GAIGS 7,1,9,7,19 (cracks - earth) HARK 8,1,18,11 INIAD 9,14,9,1,4 (in a direction \towards the inion - a ridge of the occiput)

8 digits
MOACO 13,15,1,3,15 (stream in Brazil) NAIADS 14,1,9,1,4,19 BAYBLE 2,1,25,2,12,5 (pp in UK)

C. TRIPLE TAUTONYMS

Digital triple tautonyms consist of *a group of 2 or more digits repeated twice.*

6 digits

SAIS 19,1,9,19 (in India, a horse groom) EOOA 5,15,15,1 (island in Tonga) GQAGA 7,17,1,7,1 (stream in SA)

9 digits

In each of these three examples, the digital triple tautonyms are also are digital charades. In the first example, the 2 words are also digital palindromes.

1. ABALALA 1,2,1,12,1,12,1 (pp in Nigeria) and LALKU 12,1,12,11,21 (pp in Pakistan)

In these two examples, the 2 words are letter transposals.

2. ALKUL 1,12,11,21,12 (pp in Russia) and KULAL 11,21,12,1,12 (mountain in Kenya)
3. BOBOUE 2,15,2,15,21,5 (stream in Gabon) and BOUEBO 2,15,21,5,2,15 (pp in Ivory Coast)

D. MIAMIS

A digital Miami sequence has *the pattern ab?ab where a, b, and ? represent digits.*

AWL 1,23,12 ABEL 1,2,5,12 MAAC 13,1,1,3 (make *v.*) ACEM 1,3,5,13 (pp in Turkey)
ADEN 1,4,5,14 AEDO 1,5,4,15 (pp in South Korea) PIAF 16,9,1,6
RUH 18,21,8 (rough) SKI 19,11,9 AIDS 1,9,4,19 BALA 2,1,12,1
UGBA 21,7,2,1 (pp in Nigeria) BEHY 2,5,8,25 (hill in Ireland) HERE 8,5,18,5

E. PAIR ISOGRAMS

Each different digit occurs twice.

6 digits

KYBE 11,25,2,5 (a chapped or ulcerated chilblain) VISA 22,9,19,1
LOY (Myrna) 12,15,25 is also a digital Memnon (see J. below)
LUFF 12,21 6,6 (to bring the head of a ship nearer to the wind) BLAFF 2,12,1,6,6 (to bark as a dog)
LUGG 12,21,7,7 (lug - a long stick or pole; the branch or limb of a tree)
BUHR 2,21,8,18 (var. burr, silicaceous rock capable of being employed for millstones)

8 digits

BYESS 2,25,5,19,19 (bias) BOXEN 2,15,24,5,14 (pertaining to the box tree)

10 digits

SESTET 19,5,19,20,5,20 is a Memnon word
DEVOIDS 4,5,22,15,9,4,19 (to expel, void *v.*)

12 digits

HIERATITE 8,9,5,18,1,20,9,20,5 (a fluoride of potassium and silicon)

F. SPLIT DIGIT PAIR ISOGRAMS

The same digits appear (in a different order) in the first and second halves of the digital sequence.

6 digits

JUT 10,21,20 YOU 25,15,21 CLAW 3,12,1,23
COME 3,15,13,5 HERO 8,5,18,15 GLUG 7,12,21,7 is also a digital palindrome
BEALE 2,5,1,12,5 (a surname) and YALE 25,1,12,5 and BEKY 2,5,11,25 (surname) are also digital charades

8 digits

TELEJ 20,5,12,5,10 DIODES 4,9,15,4,5,19 and IODINE 9,15,4,9,14,5 are also digital transposals

10 digits

THEATRE 20,8,5,1,20,18,5

G. TRIO ISOGRAMS

Each different digit occurs three times.

6 digits

LAVA 12,1,22,1 BALL 2,1,12,12 CAMM 3,1,13,13 (toothed rim or part of a wheel... 1831 citation)
HARR 8,1,18,18 (to snarl as a dog) DANN 4,1,14,14 (an honourable title = Master, Sir)
DADAN 4,1,4,1,14 (pp in Bangladesh) BEEBY 2,5,5,2,25 (a creek in New Zealand)

9 digits

BEBOUO 2,5,2,15,21,15 (pp in Ivory Coast)

H. QUAD ISOGRAMS

Each different digit occurs four times

LULL 12,21,12,12

These 4 words are letter transposals:

LULAB 12,21,12,1,2 (the lulab represents the palm tree in Judaism)
BALLU 2,1,12,12,21 ('bale' *n*, meaning evil)
BAULL 2,1,21,12,12 ('bawl') is also a digital palindrome
BULLA 2,21,12,12,1 (a genus of molluscs) CAMMAC 3,1,13,13,1,3 is a letter palindrome

I. QUIN ISOGRAMS

Each different digit occurs five times.

These two bidigital words are letter reversals.

LULLU 12,21,12,12,21 (mountain in Eritrea) ULLUL 21,12,12,21,12 (pp in Ethiopia)

J. MEMNONS

These consist of *2 digital palindromic triplets.*

LODE 12,15,4,5 MODE 13,15,4,5 NODE 14,15,4,5 PODE 16,15,4,5 RODE 18,15,4,5
LOO 12,15,15 MOO 13,15,15 POO 16,15,15 ROO 18,15,15 SOO 19,15,15 (dial 'sow', the female of swine)
JOY 10,15,25 ROY 18,15,25 SOY 19,15,25
LOBE 12,15,2,5 is also a digital pair isogram (see E. above) ROBE 18,15,2,5

K. AGAMEMNONS

A digital Agamemnon sequence consists of 3 digital palindromic triplets.

MANNED 13,1,14,14,5,4 PANNED 16,1,14,14,5,4
PANAMA 16,1, 14,1,13,1 is also a 2 - 2 ladder sequence (see L. below) PALAIS 16,1,12,1,9,19
MATUK 13,1,20,21,11 (stream in Indonesia) MARAIS 13,1,18,1,9,19

L. LADDERS

A digital ladder sequence consists of 3 groups each of 3 digits. Adjacent digit groups differ from their neighbour(s) by a single digit (underlined). There are 9 possible ladder digit combinations.

In DAMASK 4,1,1<u>3</u>,1,1<u>9</u>,11 the digit 4 is replaced by digit 3 in position 1 of the second 3-digit group; digit 3 is replaced by digit 9, in position 1 of the third digit group. These two digital replacements can be represented as 1 – 1 because both occur in position 1 of the tridigital groups Here are examples of the remaining 8 combinations:

1 - 2 TAJAMA 20,1,<u>1</u>0,1,1<u>3</u>,1 (pp in Indonesia)
1 - 3 KAULL 11,1,<u>2</u>1,12,1<u>2</u> old form of 'caul', a kind of close-fitting cap worn by women.
2 - 1 MALLU 13,1,1<u>2</u>,1<u>2</u>,21 (pp in Iran)
2 - 2 PANAMA 16,1,1<u>4</u>,1,1<u>3</u>,1 is also a digital Agamemnon (see K. above)
2 - 3 ASSISE 1,19,1<u>9</u>,9,19,<u>5</u> a geological term
3 - 1 IRISES 9,18,9,1<u>9</u>,<u>5</u>,19 is a Memnon word
3 - 2 SISEME 19,9,19,<u>5</u>,1<u>3</u>,5 (*nz*) is a Memnon word
3 - 3 ALASKA 1,12,1,1<u>9</u>,11,<u>1</u>

WORDS MADE FROM MORE THAN ONE DIGITAL GENERIC SEQUENCE

A. ONE DIGITAL GENERIC SEQUENCE FOLLOWS ON FROM ANOTHER

1. Palindromic Sequences

<u>3P</u> + 4P MANDA <u>13,1</u>,14,4,1 <u>4P</u> + 3P SIRAH <u>19,9,1</u>8,1,8
<u>3P</u> + 5P BLANK <u>2,12</u>,1,14,11 <u>3P</u> + 5P NOBLE <u>14,1</u>5,2,12,5

2. Tautonymic Sequences

<u>4T</u> + 4T MACUBA <u>13,1,3</u>,21,2,1 (a stream in Angola) <u>4T</u> + 4T NADAIS <u>14,1,4</u>,1,9,19 (pp in Portugal)

3. Miami Sequences

<u>M</u> + M ACEMLAL <u>1,3,5,13</u>,12,1,12 (a mountain in Algeria)

4. Mixed genre sequences

3P + 4T MASS 13,1,19,19 — 3P + 4T JAZZ 10,1,26,26
4T + 3P UBARA 21,2,1,18,1 (a bird genus - the bustard) — 4T + 4P SSEDDE 19,19,5,4,4,5 (shed *v.*) is also an I.
3P + M + 4T BABYLESS 2,1,2,25,12,5,19,19

B. ONE DIGITAL GENERIC SEQUENCE EMBEDDED IN ANOTHER

3P in 3P CLAM 3,12,1,13 — 3P in 3P JACK 10,1,3,11 — 3P in 5P ENABLE 5,14,1,2,12,5
4P in 3P BASIL 2,1,19,9,12 — 7P in 3P HUSSAR 8,21,19,19,1,18 — 3P in 8P CABALISM 3,1,2,1,12,9,19,13

4T in 4T BERRY 2,5,18,18,25 - also 3P in M 2,5,18,18,25
4T in 4T BATTU 2,1,20,20,21 - also 3P in M 2,1,20,20,21 (the driving of game from cover)
6T IN 4T SHARKS 19,8,1,18,11,19 – also 5P in M 19,8,1,18,11,19

M in M RABBLER 18,1,2,2,12,5,18 — M in M STATES 19,20,1,20,5,19

3P in 4T TAUT 20,1,21,20 — 3P in 4T BLACK 2,12,1,3,11 — 3P in 4T BELAY 2,5,12,1,25
4P in 4T YABBLE 25,1,2,2,12,5

4T in 3P INNS 9,14,14,19 — 4T in 5P ATTACK 1,20,20,1,3,11

3P in M ADORN 1,4,15,18,14 — 3P in M TROT 20,18,15,20 — 5P in M SHANKS 19,8,1,14,11,19

M in 3P KABALA 11,1,2,1,12,1 — M in 3P CAULM 3,1,21,12,13 - also 4P in 4P 3,1,21,12,13

4T in M SABLES 19,1,2,12,5,19 — 4T in M TABLET 20,1,2,12,5,20 — 4T in M TUIST 20,21,9,19,20 (twist *n.*

M in 4T LABELL 12,1,2,5,12,12 — M in 4T SABELS 19,1,2,5,12,19

3P in I REFEREE 18,5,6,5,18,5,5

trioI in 3P SABULA 19,1,2,21,12,1

C. INTERLOCKED DIGITAL GENERIC SEQUENCES

The digit strings formed by many words can be 'unlocked' to release 2 or more digital generic sequences. Just as a key and its lock, the sequences are interlocked. The digits of the word REFEREE (above), as well as demonstrating a 3P sequence embedded in a pair isogrammatic sequence, also demonstrate a DD sequence interlocked with a 5P sequence (18,5,6,5,18,5,5 or 18,5,6,5,18,5,5).

3P/M HARDEN 8,1,18,4,5,14 — M/6T ANCHORED 1,14,3,8,15,18,5,4
M/7P SPOOKS 19,16,15,15,11,19 — M/7P SKUNKS 19,11,21,14,11,19
L/tripleT PANAMANIAN 16,1,14,1,13,1,14,9,1,14 - the L sequence 161.131.191 is also an Agamemnon sequence
3P/**3P**/3P GOOGLE 7,**15**,15,7,**1**2,5 — M/**3P**/3P AUSTRIA 1,2**1**,19,20,1**8**,9,**1**
M/**tripleT**/3P HUSTLERS 8,**21**,19,**2**0,**12**,5,**1**8,19 — 4T/**3P**/M BUSTLES 2,**2**1,19,2**0**,1**2**,5,19

Alternative digital generic sequences can be derived from the above words. Thus SKUNKS also produces the sequences 1919 121 11411 (4T/3P/5P), amongst others. A serious contender for the 'King of the Interlocks' must surely be the word ARBOREAL (1,18,2,15,18,5,1,12). It is difficult to know just how many interlock variations it embodies. I eventually gave up what appeared to be a never-ending exercise! The secret of ARBOREAL's versatility lies in the fact that the 6 digits (118215) which make up the first half of the 12-digit string are repeated, in a different order, as the 6 digits (185112) which make the second half of the string.

Here is just a flavour of the numerous digital sequence combinations provided by ARBOREAL:

4P/8P 1 1 8 2 1 5 1 8 5 1 1 2 — 6T/6T 1 1 8 2 1 5 1 8 5 1 1 2 — 6T/6I (split) 1 1 8 2 1 5 1 8 5 1 1 2
6P/**3P**/3P 1 1 **8** 2 **1** 5 1 **8** 5 1 1 2 — 8T /DD 1 1 8 2 1 5 1 8 5 1 1 2 — M/**3P**/DD 1 1 8 **2** 1 5 1 8 5 1 **1 2**
3P/**3P**/*3P*/3P 1 1 *8* 2 *1* **5 1** *8* **5** 1 1 2

Perhaps the sheer enormity of what ARBOREAL has to offer can better be appreciated by listing some of the interlocks which include the 3P sequence 151:

1 1 8 **2** 1 5 **1** 8 5 1 1 **2**	151	1212	18581	1 **1** 8 **2** 1 5 1 **8** 5 **1** 1 **2**	151	1212	81518
1 **1** 8 **2** 1 5 1 8 5 **1** 1 **2**	151	1212	18518	**1** 1 8 **2** 1 5 **1** 8 5 1 1 **2**	151	1212	81581
1 1 8 **2 1** 5 **1** 8 5 1 1 **2**	151	2112	18581	1 1 8 **2 1** 5 1 8 5 **1** 1 **2**	151	2112	18518
1 1 8 **2** 1 5 1 8 5 1 1 **2**	151	1122	81581	1 **1 8 2** 1 **5 1** 8 5 1 1 **2**	151	12512	8181
1 **1 8 2** 1 5 1 8 **5 1** 1 **2**	151	12512	1818	1 **1 8 2** 1 **5 1** 8 5 1 1 **2**	151	12512	1881
1 1 8 **2** 1 **5** 1 8 5 1 **1 2**	151	12512	8118	1 1 8 **2 1** 5 1 8 **5 1 1 2**	151	21512	1818
1 1 8 **2 1 5 1** 8 5 1 1 **2**	151	21512	1881	1 1 8 **2 1 5** 1 8 5 **1 1 2**	151	21512	1188

ORDERLY DIGITS

A. PROGRESSIVES

Digitized, these words make consecutive numbers. eg. 1.2.3.4 or 10.11.12

AWDE 1,23,4,5 (pp in Nigeria)
JAAL 10,1,1,12 (pp in Oman)
MADAE 13,1,4,1,5 (hill in Eritrea)
NAEP 14,1,5,16 (naep - a turnip - from Latin *napus*)
PAGAH 16,1,7,1,8 (Deh Pagah - pp in Iran)
AGAHS 1,7,1,8,19 (2 places called Agah: AGAH is a locality in Tunisia; Ritan Al AGAH is a pp in Iraq)
RAIT 18,1,9,20 (old form of 'rate')
AITU 1,9,20,21 (in Polynesia, a demigod - *cham*)
TUBB 20,21,2,2 (tub)
AKKUM 1,11,11,21,13 (pp in Turkey)
ALAMAN 1,12,1,13,1,14 (pp in Kazakhstan) is also a 3 - 3 ladder sequence
KHASAT 11,8,1,19,1,20 (Ra's Khasat an Nawm - pp in Yemen)

MEGI 13,5,7,9 is an **odd number progression** (Megi Sima is an island in Japan)

LORBA 12,15,18,2,1 is a **3-step progression** (pp in Russia)

B. REGRESSIVES

KIARAQ 11,9,1,18,1,17 (pp in Iran)
ANAMAL 1,14,1,13,1,12 (enamel)
AMALKA 1,13,1,12,11,1 (pp in Niger)
BATS 2,1,20,19 and UTAI 21,20,1,9 (pp in India) and BATAI 2,1,20,1,9 (pp in China) are digital charades
TAIR 20,1,9,18 (tear *v.*)
AIRAG 1,9,18,1,7 (Airag Nor is a lake in Mongolia) and SAHQ 19,1,8,17 (wadi in Saudi Arabia) are digital charades
AHQAF 1,8,17,1,6 (pp in Lebanon)
AGAFO 1,7,1,6,15 (pp in Russia)
PAEN 16,1,5,14 (old form of payen = pagan B *adj.* c1330 citation)
ONAC 15,14,1,3 (stream in Turkey)
MAUA 13,1,21,1 (pp in Angola)
CU 3,21 (cow, cue)

SAGO 19,1,7,15 is an **odd number regression**

NARE 14,1,18,5 is a **3-step regression**

DIGITAL GEOMETRICAL FORMS

Each of these words has a digit combination which can be displayed as a geometrical form.

TRIANGLES

BUCK
2,21,3,11

```
   3
  2 2
 1 1 1
```

BOLERO
2,15,12,5,18,15

```
    8
   2 2
  5 5 5
 1 1 1 1
```

DECESSIONS (departures)
4,5,3,5,19,19,9,15,14,19

```
     3
    4 4
   5 5 5
  9 9 9 9
 1 1 1 1 1
```

CALL 3,1,12,12 makes
the same triangle

PENTAGONS

LEVER
12,5,22,5,18

```
   8
 5   5
2   2   2
  1   1
```

TOOTLES
20,15,15,20,12,5,19

```
     9
   0   0
 5   5   5
1   1   1   1
  2   2   2
```

COSTLIEST
3,15,19,20,12,9,5,19,20

```
     3
   5   5
 9   9   9
1   1   1   1
  2   2   2
    0   0
```

HEXAGONS

MARCH
13,1,18,3,8

```
  3   3
1   1   1
  8   8
```

SILVAS (woody Amazon plains)
19,9,12,22,1,19

```
    9   9   9
1   1   1   1
  2   2   2
```

TELIOSTS (= Teleosts)
20,5,12,9,15,19,20,19

```
    5   5
  9   9   9
1   1   1   1
  2   2   2
    0   0
```

RHOMBUSES

DEN
4,5,14

```
  1
4   4
  5
```

RELATE
18,5,12,1,20,5

```
    8
  2   2
1   1   1
  5   5
    0
```

GHOSTLIEST
7,8,15,19,20,12,9,5,19,20

```
    7
  5   5
9   9   9
1   1   1   1
  2   2   2
    0   0
      8
```

EGG TIMERS

INN
9,14,14

```
1   1
  9
4   4
```

GREGORY
7,18,5,7,15,18,25

```
    1   1   1
      7   7
        2
      8   8
  5   5   5
```

BREATHER
2,18,5,1,20,8,5,18

```
  1   1   1
    2   2
      0
    5   5
8   8   8
```

UNRESTRICTED DIFFERENT DIGITS

This article began by offering words having a restricted number of different digits. It seems appropriate, therefore, that it should end with a word having the maximum number of different digits, ten, and no extraneous digits. The word is FETCHING. Well of course it is!

FETCHING 6,5,20,3,8,9,14,7 is made of one each of the ten digits 0 to 9 (with the same letters, FECHTING is an old word for 'fighting'). Are there any other 0123456789 words?