

TWIN PLACES AND OTHER TOP ANAGRAMS

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The trigger for this article was finding a twin for a town mentioned by Darryl Francis (in the sense that one, El Canbaro, was a permutation of the letters of the other, Barcelona, W03-277). I thought it might be amusing to see how many twin places existed, as it seemed to be as good a basis for town twinning as the reasons often given for these excuses for mayoral junketing. I was overwhelmed: more than one third (about three-quarters of a million) of all places participate in twins, but also nearly a quarter of a million exist in triplets, and so on. The most permutable sequence of letters can be arranged into 54 different places, the next into 53 places, and so on. In alphomic form, the sets are: 54 places for AEILMS; 53 places for AAIKRS; 52 places for AAIMRT, AAINRT, AEIMNS, AEIMRS, and AEINST; and 51 places for AAGINR and AEILMR. Note that an A and an I always occur, together with an E, and frequently letters from R, S and T. The S is of course useful for plurals or conjugation of verbs, as are letters to make the endings -OR, -ER, -ING etc, and prefixes such as A-, and UN-. Note also that all cases have exactly six letters, which was not a restriction imposed by me. Longer sequences would seem, in theory, to give more scope for longer endings, such as -ING or -NESS, and prefixes like ANTI-; but it may be that shorter words contain a greater mixture of letters. The full sourcing for the 54 case is given below, and the cases with 53 and 52 forms are given in compact form to save space (but see next section for AEINST).

54 places for AEILMS or ISMAEL

Alisem, Turkey, 37°58, 40°58

Elmasi, Albania, 41°10, 19°36

Ezbet Ibrahim `Abd **el-Sami**, Egypt, 29°33, 30°57

Mohammad Sheykh ol **Eslami**, Iran, 36°38, 51°25

Ilemas, Russia, 56°38, 50°37

Laem Si, Thailand, 9°23, 99°19

Lamesi, Bosnia and Herzegovina, 44°38, 18°39

Arbet **Lemais**, Western Sahara, 21°23, -16°50

Lem Sai, Thailand, 9°23, 99°19

Monte **Lesima**, Italy, 44°41, 9°15

Limaes Point, Angola, -13°15, 12°39

Pulau-pulau **Maisel**, Indonesia, -5°29, 127°32

Malesi, Croatia, 43°44, 16°45

Maseli, India, 20°47, 80°26

Masile, Philippines, 14°48, 120°49

Sungai **Melais**, Brunei, 4°50, 114°59

Sidhirodhromikos Stathmos **Melias**, Greece, 39°33, 22°35

Mesali, Dem. Rep. of the Congo, 3°04, 21°17

Eripiia Ano **Mileas**, Greece, 40°14, 22°16

Misale, Dem. Rep. of the Congo, -3°31, 17°38

Comuna **Mislea**, Romania, 45°05, 25°49

Salemi Nargay, Afghanistan, 33°46, 69°31

Dar **Amesil**, Morocco, 29°19, -10°06

El-Mi'sa, Jordan, 31°27, 35°41

Bab **Emsila**, Morocco, 35°13, -5°34

Esmali Sai, Afghanistan, 36°18, 64°56

Ismael Pinto, Colombia, 8°42, -76°19

Rio **Laisme**, Venezuela, 8°50, -63°46

Oued oua-n-**Leimas**, Algeria, 28°44, 6°55

Lemasi, Greece, 38°12, 23°50

Lemsia, Georgia, 43°01, 42°40

Les **Liames**, France, 46°33, 1°57

Maesil, South Korea, 34°43, 125°56

Maleis, Sudan, 6°31, 29°52

Maseil-seil, Philippines, 15°55, 120°53

Masiel, Cameroon, 3°27, 12°36

Meisal Lake, Norway, 62°46, 8°10

Mesila, Finland, 63°45, 26°57

Isla de **Misael**, Colombia, 7°20, -77°19

Miseal, Ireland, 52°41, -6°46

Mseila, Algeria, 34°35, 4°34

Salime, Spain, 43°13, -6°50

Sameli, Ghana, 8°09, -2°01

Gor **Selami**, Western Sahara, 26°23, -10°37

Sungai **Semail**, Malaysia, 3°11, 103°04

Semlia, India, 24°30, 74°22

Silema, Sierra Leone, 8°22, -11°05

Sliema Point Tower, Malta, 35°54, 14°30

Phumi **Samlei**, Cambodia, 10°57, 106°01

Mallahet 'Ugret **Selima**, Egypt, 31°09, 33°05

Semali, Indonesia, -7°29, 110°10

Silame, Guinea, 11°41, -11°56

Es-**Slemia**, Libya, 32°37, 12°17

Pointe **Smaile**, Vanuatu, -16°38, 168°14

53 places from KAISAR or AAIKRS

AIKSAR	AKASRI	AKRIAS	AKSAIR	ARASKI	ARKASI	ARSAKI	ASAKIR
ASAKRI	ASIRAK	ASKIRA	ASKRIA	ISARAK	ISKARA	KAISAR	KARAI
KARASI	KARIAS	KARISA	KARSIA	KASAIR	KASARI	KASIAR	KASIRA
KASRIA	KIASAR	KIRASA	KISARA	KRASAI	KSAIRA	RAASKI	RAIKAS
RAISKA	RAKASI	RAKISA	RASIKA	RASKAI	SAIKAR	SAIKRA	SAIRAK
SAKAIR	SAKARI	SAKIRA	SAKRAI	SARAIK	SARAKI	SARIAK	SARIKA
SARKAI	SIARAK	SIKARA	SKARAI	SKARIA			

ARASKI, Estonia, is at www.eki.ee/knn/amas_vy.htm

52 places from AIRTAM or AAIMRT

AIR-TAM	AIT MAR	AMARIT	AMARTI	AMIRAT	AMRATI	ARAMTI	ARIMAT
IMARAT	IMATAR	IMATRA	IRMATA	IRTAMA	MAITRA	MARAIT	MARATI
MARIAT	MARITA	MARTIA	MATAIR	MATARI	MATIRA	MATRAI	MIARAT
MIATRA	MIRATA	MITARA	MITRAA	MRAIAT	MRATIA	MTAIRA	RAITAM
RAMATI	RAMIAT	RAMITA	RAMTIA	RATAMI	RATIMA	RATMIA	RIMATA
TAAMIR	TAIMAR	TAIRMA	TAMIRA	TARAMI	TARIMA	TARMAI	TIA-MAR
TIARAM	TIMARA	TRAI MA	TRAMAI				

52 places from AIRTAN or AAINRT

AIRTAN	ANATIR	ANTARI	ANTIRA	ARANIT	ARITAN	ARNAIT	ARNITA
ARTANI	ARTIAN	ARTINA	ATARNI	ATNAIR	ATRAIN	ATRANI	IANTAR
INARAT	INATRA	INTARA	NAIRAT	NARIAT	NARITA	NARTIA	NATIRA
NIARTA	NITARA	NTARIA	NTIARA	RAINTA	RANATI	RANITA	RANTAI
RATANI	RATINA	RATNAI	RATNIA	TAARIN	TAIRAN	TANAIR	TANARI
TANRAI	TARANI	TARIAN	TARINA	TARNAI	TIANRA	TIARAN	TINARA
TIRANA	TRAIAN	TRAINA	TRIANA				

52 places from AMIENS or AEIMNS

AMIENS	ANSEMI	ASMINE	EIMANS	EMINAS	IMENAS	IMESAN	ISMENA
MAENSI	MAINES	MAISEN	MANESI	MANIES	MANISE	MANSIE	MASEIN
MASENI	MASINE	MEISAN	MENISA	MENSIA	MESANI	MESINA	MESNIA
MIANES	MINSAE	MISANE	NAMEIS	NAMESI	NAMIES	NAMISE	NA SIEM
NEMASI	NE SIMA	SAIMEN	SAMEIN	SAMENI	SAMIEN	SANIME	SAN-MEI
SEINAM	SEINMA	SEMANI	SEMIAN	SENAMI	SENMAI	SIAMEN	SIMANE
SIMEAN	SIMENA	SINMAE	SMAINE				

52 places from MARIES or AEIMRS

AM SERI	ARMEIS	ARMISE	ASERIM	ERIMAS	ERISMA	IMSERA	MAIERS
MAISER	MAISRE	MARIES	MARISE	MASERI	MASIRE	MEIRAS	MEISAR
MEISRA	MERAIS	MESARI	MESIRA	MESRAI	MESRIA	MIASER	MIERAS
MISARE	MISERA	MREISA	MSAIRE	RAMESI	REMASI	REMISA	RIMESA
SAIRME	SAMERI	SAMIER	SAMIRE	SAREMI	SARIME	SEMARI	SEMIAR
SEMIRA	SERAMI	SERIAM	SERIMA	SERMAI	SERMIA	SIMARE	SIMERA
SIRAME	SMEIRA	SMERIA	SREIMA				

Unrestricted Permutations

The next natural step was to ask what would happen if all words were allowed. The results were that 60% of all words had no twin. The top result was 84 different permutations of AEINST (which is kinder to call TISANE, a word in all good dictionaries, and 3= in place names); 80 each for NASTIER (or AEINRST, the Francis sequence) and SATIRE (AEIRST); 77 of REGAIN (AEGINR); 74 of GENIAL (AEIGLN) and ANGRIEST (AEGINRST, the Borgmann/Grant sequence); 73 of AMIENS (AEIMNS, 3= in place names) and ARSINE (AEINRS); 72 of DENIAL (ADEINL); 71 of RAINED (ADEINR); 70 of SALINE (AEILNS); and 68 of ISMAEL (AEILMS, the top sequence for place names).

For the first time, there is a sequence of other than six letters, ie the seven of NASTIER. A, E, and I are always present, and RST are popular. Full sourcing is given for TISANE, but sources in the last two cases are not given in detail if the words come from the NIMA database, which is usually the case. The top case, TISANE, is also one of the "52" cases which should have appeared above: I have given both place and non-place sources here, so that the one list serves both purposes.

84 words for AEINST or TISANE (including 52 place names, and 29 words from the OED, with some words in both categories)

aienst , OED arm 3a, 1489q	Anesti , Ukraine, 46°23, 29°27
Aniste , Bosnia & Herzegovina., 44°41, 19°14	Anites , Latvia, 56°29, 23°02
Anstie (name), OED cavendish 1, 1844q	aseint , OED
Asinet , Chad, 12°33, 16°29	
ASNITE = Accreditation System of National Institute of Technology and Evaluation, Japan, (eg) www.nite.go.jp/asse/asnite/en/outlines/asnite_outlins.html	
Astein , Austria, 47°43, 14°28	Astine , China, 42°55, 93°08
Eastin , US Census personal name	eat-ins , OED -in, 1965q
Eistan , Norway, 70°15, 19°32	
Enista AB (Swedish corp.), www.carlbro.com/archive24.php (& family name, US, on Web)	
Enitsa , Bulgaria, 43°23, 24°04	
The Doctrines of Alchemy: Signatures, Correspondences, Entias ... www.alchemilla.com/aref.html	
Esta'in , Iran, 37°06, 57°05; or estain , OED stannum (Old French), or US Census personal name	
Estani , Bolivia, -11°38, -65°43	Estian , OED strain 6a, 1688 (Dryden)
Etinas Island, Philippines, 13°52, 123°52	Iantes , OED fellow, 1611q
Ietans , OED snake 8, 1821q	I-n-Ates , Niger, 15°14, 1°19
inseat , OED	Povoa de Isenta , Portugal, 39°13, -8°45
Itesan , Niger, 13°53, 5°13	nastie , OED nasty 1a, 1576q
neista , OED next	sainte , OED bequeath, 1066q
Saiten , Germany, 47°41, 10°16	Phou Pha Saniet , Laos, 20°04, 103°58
sanite , OED	Santei , South Korea, 34°36, 126°59
Santie , Ghana, 10°37, -2°05; santie , OED santy	Sateni Nar, Pajistan, 34°38, 75°02
Sa-tien , China, 32°33, 117°31	satine , OED satiné
seiant , OED	Tug Seinat , Somalia, 11°06, 47°28
Seitan , North Korea, 37°58, 125°56	Argoub Seniat , Algeria, 28°01, 4°45
Senita , Sierra Leone, 9°13, -12°35; senita cactus, ITIS plant	
Sentai , Indonesia, 0°58, 109°49	Sentia , Ghana, 10°37, -2°05
Setani , Indonesia, -2°06, 138°35	
Setina , Greece, 40°52, 21°38; <i>Carex maritima</i> setina , ITIS plant	
<i>Horaichthys</i> setnai nigrellus, ITIS animal	Sint'ae-ri , North Korea, 40°27, 128°00
Sintea Mica, Romania, 46°25, 21°36	Sitane , Ghana, 10°52, -0°26

Sitena, Albania, 39°48, 20°14

staine, OED

stanie, OED stoney

Steina, Iceland, 64°41, -14°38; **steina**, OED stain (Old Norse)

Genus **Stenia**, Family Orchidaceae, monocot, PS

Taesin, South Korea, 35°53, 126°52

Taisen, North Korea, 39°55, 125°29; **taisen**, OED teise 1, 1330q

Piton **Taisne**, French Southern and Antarctic Lands, -49°19, 70°01

Tanies Tba, Georgia, 42°38, 45°00

Tansie, Burkina Faso, 10°49, -3°16; **tansie**, OED silverwort, 1611q

Tasien, Burkina Faso, 11°03, -1°42

Tasnei Mountain, Canada, 62°10, -129°40

Teian, OED Teian, 1902q

Teisan, South Korea, 36°24, 126°56

Tenisa, Spain, 27°54, -15°30

Tesani, Bosnia and Herzegovina, 43°42, 18°22

Tesina Glavica, Bosnia & Herz., 44°43, 17°35

tineas, OED tineia

tisane, OED

tseain, OED Mongolian A 1 a, 1893q

staien, Hodge

Valea **Stanei**, Romania, 47°33, 25°11

stîæn, OED stone (North Frisian)

taines, OED taine

Tanise, Vanuatu, -15°10, 168°06

Tasine, Guinea, 10°26, -13°16

teasin' OED well-a-fine B, 1892q

Teinas, Norway, 61°17, 5°08

tenias, pl of OED tænia, tenia

Quebrada **Tensia**, Colombia, 5°34, -73°32

Ti Anse, Haiti, 18°25, -72°05

Tinsae Berhan, Ethiopia, 8°29, 39°50

tsaine, ITIS animal

Djebel **Tsenia**, Algeria, 35°14, 0°07

NASTIER (AEINRST)

One of the sequences in second-place, NASTIER, has been the subject of much work in the past by Darryl Francis. In total, his contributions W98-163, W99-262, and W00-08 listed 181 permutations. This compares with my puny 80, though he lists such non-dictionary items as "tears in". I list 24 additional places or zoological names, taking the total to over 200, and offer better sources for some of his sequences. These two figures of 80 and 207 may be compared with the mere 14 words of the most permutable 7-letter sequence in Webster 2, which, it has been reported in *Making the Alphabet Dance*, has just 14 permutations (This sequence is again NASTIER.). Of my 80, about half are place names or zoological names, and it seems clear that dictionary words and derived forms, ancient and modern, can only account for about one quarter of the 207: the majority of permutations are still such items as plurals of family names, or sequences such as RENT IS A.

Additions to AEINRST:

Arsenti Podere Mont, Italy, 43°04, 10°54

Bled **Irtsane**, Algeria, 36°30, 1°22

Istrane, Greece, 41°23, 24°06

Nestiar, Russia, 56°33, 45°20

Nistrea, Romania, 47°05, 27°08

Retsani, Greece, 39°44, 22°44

Sen Trai, Vietnam, 21°28, 104°21

Ti-n-**Sratine**, Algeria, 26°32, 1°36

Jebel **Tarsine**, Morocco, 30°34, -6°34

Tisanre, Chad, 9°57, 14°31

Tisnare Kanal, Sweden, 58°53, 16°05

Tsareni, Moldova, 47°45, 28°52

Artinse, France, 45°51, 1°46

Salto de **Isanter**, Colombia, 6°04, -74°07

Neritsa, Russia, 65°20, 52°45

Niaster, Belgium, 50°27, 5°40

Nseirat, Mauritania, 18°02, -8°03

Riasten, Norway, 62°51, 11°45

Si'ertan, China, 37°14, 103°50

Sternai, Greece, 35°31, 24°09

Rio **Tiernas**, Spain, 41°28, -1°20

Tisaren, Sweden, 59°00, 15°08

Orthocladus **traenis** neofasciatus, ITIS animal

Chabet Ain **Tsirane**, Tunisia, 36°50, 8°51

better sources:ARSTEIN **Arstein**, Germany, 51°02, 7°44RASETIN **Rasetin** Vrh, Croatia, 44°33, 15°53RENTIAS **Rentias** Rust, South Africa, -27°01, 26°18 (no apostrophe)SARTINE **Sartine**, Belgium, 50°33, 3°16STERIAN **Sterian** Dumbrava, Romania, 46°09, 27°35 (was S. Ter-ian, an author)TERNAIS La **Ternais**, France, 47°15, -1°59TERSINA **Tersina** cardenium wallacei, ITIS animal**alternative source:****rantise**, Brandreth: The Scrabble Book, Chancellor Press, 1993

AEGINRST

Having come so close, it would seem remiss not to mention the most famous example of word permutations — AEGINRST, which is 5= in my top sequences, having just 74 entries. The present list was based on Borgmann's, but many words were ejected by Jeff Grant, who then added more (see W94-008 & W94-089) to bring the total to 158, which was incremented by two, making 160 (by Darryl Francis, W97-98, W98-33). This compares with 11 for the most permutable 8-letter word in Web2: AEINRSTU. Below I add 12 to this list, making 173 in all. Similar remarks about how such a large number is reached apply as above: Jeff Grant's criteria for inclusion are carefully spelled out in W94-008.

Additions to AEGINRST:**Geriants**: Geriant is a type of fencing by Poly Vinyl Creations; or David Geriant, an Origami designer**Greinats**, Germany, 47°45, 10°22**Grestain**, France, 49°25, 0°21**rietgans**: Dutch name of Bean goose, *Anser fabalis* Saheh-ye **Rigestan**, Afghanistan, 31 16, 6548**sargient**, OED overplus C, 1640qSungai **Sengarit**, Indonesia, 0°15, 110°14Sungai **Seritang**, Malaysia, 4°43, 103°11**snatering**: noise made by rietgans, qv (Digswell Lake Society newsletter)Mount **Stigare**n, Svalbard, 77°56, 16°38**Ti-n-Esgar**, Mali, 16°17, -4°17Mys **Tsingera**, Russia, 79°08, 104°04**better sources:**

REGISTAN: Jeff Grant gives Registan as a desert; indeed it is: it actually means "sand place". However, there are Registan Squares at the centre of Central Asia's two most famous towns, and the Registan in Samarkand is one of the world's most famous buildings (just rebuilt when I visited!).

SARGENTI: *Somatogyrus sargenti praesidii*, ITIS animal.STRIEGAN: *striegan* (Old English), OED *instrie*.

In fact, some of his dictionary words or names can be found in more accessible sources, such as Chambers or the OED.

OTHERS

key: nothing = place from NIMA, a=ITIS animal, d=EDD, o=OED headword or variant, s=OSPD, t=OED citation, w=W81-104ff., z=New Zealand place ex www.linz.govt.nz/databases/geographic/geodist.html

80 words from SATIRE (AEIRST)

AERISTo AIRESTs AIRSETw AISTERt AISTREt AITRES ARESTI ARISTEo
ARITES ARTEISt ARTIESa ASTEIRo ASTERla ASTIERt ASTIREo ASTRIEt

ATERIS	ATIERSw	ATIRESt	ATISERt	ATRIESw	ATRISEx	EAIRTSd	ERITAS
ESTIAR	ESTRAIt	ESTRIA	ISTERA	ITERAS	RAISETt	RAISTE	RASETI
REISAT	REISTAt	RESITA	RETAIS	RIETSA	SAETRI	SAITRE	SARETI
SARTIE	SATERI	SATIREx	SERAItt	SERATI	SERIAT	SERITA	SIERTA
SIRATE	SITAREt	SITERA	SRAIET	STAIERx	STAIREx	STAREI	STEIARx
STERIAw	STIAREt	STIERAx	STRAIEx	STREIA	STRIAEx	TARIESt	TARSEI
TASERI	TEARISt	TEASIR	TERAISs	TERASI	TERIASt	TERISA	TERSAI
TERSIAx	TESARIt	TIARESt	TISERA	TRAIESt	TRAISEx	TSERAI	TSERIA

77 words from REGAIN (AEIGNR)

AGRENIa	AGRINE	AIGNER	AINGERt	ANERGI	ANGERI	ANGIERt	ANGIREt
ANGREI	ANGRIEx	ANIGERt	ARENIGx	ARGEIN	ARGENI	ARGINEx	ARIENG
ARINGE	EARINGx	ENGARIZ	ERANGIZ	ERGANI	ERGINA	ERiang	ERIGANt
ERINGA	GAERIN	GAINERx	GAIREN	GANERI	GAREIN	GARIEN	GARINE
GARNIEt	GEARINt	GEIRAN	GENARI	GERANI	GERIANt	GERINA	GIRANE
GRAINEx	GREIAN	GREINA	GRENAI	GRIANE	GRINEA	IGAREN	IGNAREt
IGNERAa	IGRANE	INGARE	INGEARx	INRAGEx	IRAGNEt	IRENGA	IRGANE
NAGERI	NARIGE	NEGARI	NEGIRA	NEGRIA	NGAIREt	NGERIA	NIGERA
NIGRAEt	RAIGNEx	RAINGEx	RANGEI	REAGINx	REGAINx	REGANIa	REGIANx
REGINAx	REIGAN	REINGAx	RENGAI	RIGANE			

Conclusion

To test the truth of the proposition above (that more dictionaries at this point would add very little), I asked Susan Thorpe to examine a set of words containing highly unusual letter sequences (Hodge: Handbook of American Indians). This failed to contain even a single word in the AEILMS (top places), or the AEGINRST (Borgmann/Grant), or the NASTIER (Francis) lists, let alone add to them. It did, however, contain two of the words in TISANE (my top word), and added one to it: STAIEN. This experiment seems to confirm that significant success in expanding the lists lies in the imagination rather than further dictionaries. The relative success of place names is simply due to their overwhelming numbers. My thanks to Susan Thorpe for conducting the experiment.

To conclude, many sequences give approximately the same number of permutations: if one is reported as being significantly more permutable, that is because a special effort has been made in that particular case to find ever more outré examples.

It should not be too difficult to fill in some of the gaps by using different word endings.

Place names are from the NIMA database. Latitude and longitude are in degrees and minutes. PS source is www.anet.com/~manytimes/plantssyn.txt.

Afterword

On a less serious note, there are many delights to be discovered in a list of anagrams. There is the tautonymic pair BANCABANCA and CABANCABAN in the Philippines. Then imagine the delight of a sadistic crossword compiler, who pretends that an innocent BOOK SALE (OED) is taking place in ABELKOSO (Congo), BEKOLOSA (Madagascar), BOLOKASE (Indonesia), or SABOLOKE (Georgia).