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A CONTRIBUTION TO THE STUDY OF THE

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A CONTRIBUTION TO THE STUDY OF THE  
AZTEC LANGUAGE

[A detailed linguistic and literary treatment of the  
second poem found in D. G. Brinton's compilation,  
Ancient Nahuatl poetry]

by  
Benjamin Lee Whorf  
(circa 1928)

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Note: This copy was found among Whorf family papers by J. B. Carroll. Another copy occurs as Manuscript 157 in the Franz Boas Collection, Library of the American Philosophical Society, Philadelphia, Pennsylvania.

# A CONTRIBUTION TO THE STUDY OF THE AZTEC LANGUAGE

By Benjamin Lee Whorf

The ancient Aztec or Nahuatl poem which is treated of herein may be found in S. G. Brinon's excellent compilation entitled "Ancient Nahuatl Poetry", in which it is the second poem of the series. Brinon furnishes us with a prose translation of this as of the other songs in the volume. My object in presenting a metrical translation and a grammatical analysis of this example of native Mexican literature is even more a linguistic than a literary one. I wish not only to awaken interest in the still unpublished folk-song of the Nahuatl-speaking area and in the little-noted monotheistic ideas of the pre-Conquest Indian peoples, but also to call the attention of linguistic scholars to a certain field for research. This highly developed and intricately structured language yields with great readiness to semantic analysis, which shows its copious vocabulary to be all based upon and developed from a surprisingly small stock of monosyllabic roots of the simplest type, recalling those of the Polynesian tongues - signs of elementary ideas from which the whole thought-content of the language is not only derived, but as it were synthesized.

The question presented itself: what is the best way to convey a picture of this root structure and word superstructure, together with the necessary minimum of the grammar, to scholars unacquainted with this tongue but perhaps equipped to throw new light upon it from their own studies in other families of speech? It seemed to me that the best or at least the most interesting way would be to have a series of short studies upon some native text that would also be interesting in itself, as a specimen of literature and for the ideas revealed in it. Such qualities the selected poem possesses in high degree. Dropping the philological interest for a moment, let us look at the religious belief which it records.

The prevalent conception of the Aztec religion, that of a dark and complicated polytheism, an entanglement of diabolical deities fed upon the blood of human victims, is correct enough, especially for that influence which radiated from the city of Mexico along with the political acquisitions of its rulers. And yet this aspect has served to mask another and very different sort of religion that likewise existed among the ancient Mexicans. Indeed it is not without logical misgivings that I use the much-used and much-abused word religion to cover such widely different currents of human thought and feeling. The popular and political polytheism had to do with the gods, who were also very often the demons. The other thing, which in a sense was also popular but less political, had to do with God. That dim sense of a vast and remote Being behind the mystery of the universe and behind the forces represented as a walter of deities, that lurks in the background of so many polytheisms.\*  
\*E.g. see "Horse Symbolism" F. A. March, tr. by E. E. Hultsch, pp. 111, 225 re. "The Mighty One, he who governs all things" who will come from above after Ragnarok and the new heaven and earth, acc. to the Volospa.

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seems especially strong among the people of the old Nahuan civilisation, and had crystallized into something rather nearer the Christian conception of God than we are accustomed to expect even in more elaborate cultures than this. This thing, part an idea and part perhaps a hardly expressible feeling, seems to have had both ethnic wellsprings and personal prophets, and it is a question how much of it had haunted the mind of this folk since the Incas, and how much had been due to the genius of individual prophets like King Nezahualcoyotl with his resemblance to the Egyptian Iknaton and that more ancient and shadowy theocrat who was deified under the name of Feathered Serpent - Quetzalcoatl. At any rate it existed side by side with the mythologies and their terrible kings, just as elements of a purer religion exist side by side with the degraded superstitions of the popular cults of modern India, and existed in the midst of the bloody business of Aztec and Canaanitish worship. Such a prophet as Nezahualcoyotl was indignant that the cult of the one God should not be polluted with the stained rites of the idol-cults, as were the prophets of the Hebrew and XMM religions, and even as the worship of Iknah was threatened with being buried under that of Moloch, so the worship of the sole God of Nezahualcoyotl actually was buried under that of Huicilopochtli, and became a thing of undercurrents and vestiges and the refrain of a song, and soon afterward its current was merged into that of Christianity.

Some record of this monothestic belief may be found in the songs and poems of this people, as a glance through Brinon's collection will show, and as to the importance of this literature and the language in which it is composed, Brinon has this to say in his introduction:

"I would mention that there is a large body of Nahuatl literature yet unpublished, both prose and poetry, modern and ancient, and as the Nahuatl tongue is one of the most highly developed on the American continent, it is greatly to be desired that all this material should be at the command of students."

With this preface let us proceed to the poem in question, which I will first present in metrical translation. By turning to the first appendix one may compare this translation with its Aztec original. Of this the division into lines, if there was any, has been lost, and in breaking it into lines I have sought only to parallel the corresponding lines of the translation insofar as feasible. The division into stanzas is made by the refrain *oayn*. The divine name or epithet found in this and various other songs I have rendered as "Ever-Present Lord" and though this is only the roughest of approximations to this subtle and really untranslatable term, it is nearer than Brinon's rendering, "Cause of All", which is rather another and wholly different term applied to the same Supreme Being than it is a translation of the term itself, in which there is no idea of pantheism.

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## A SPRING SONG, AN OTOMI SONG, A MELODY.

Blossoming gardens I who sing this song have entered many a one,  
 Carefree haunts in pleasant places all aglow with dew and sun,  
 Where the sweet birds all are trilling, where comes floating down  
 the song  
 That the silver-throated coyol birds are strewing all along,  
 Crying joy before the Ever-Present Lord; oaya! oaya!

There the very soul and center of that music comes to me -  
 Surely not from earthly sources springs such golden harmony;  
 Only in the far-off heaven e'er was such sweet coyol heard  
 Lifting voice in chorus with the quechol and the zacuan bird,  
 Where indeed they praise the Ever-Present Lord, oaya! oaya!

Then I ponder what I've heard - up! my spirit, soar afar  
 Till thou comest forth in glory where those heavenly regions are -  
 Turn into a rushing wind, my sighs! and let me on your wings  
 Pass beyond into that heaven's depths wherein the zacuan sings,  
Oaya! oaya!

But when I look into my heart, this the truth that I can see;  
 There is no sweet bird sings at all - true - yet heavenward there  
 must be  
 The things the mind of God hath wrought, than these my fancies  
 greater far,  
 And if my spirit turns to God I may sometime transcend the bar  
 And enter in and see the wondrous works the heaven's depths afford  
 To gladden heaven's own sweet birds before the Ever-Present Lord.  
Oaya! oaya!

How much longer must I weep on earth through life's deluding play!  
 Knowing well it all must vanish when this breath shall pass away -  
 O Thou Ever-Present Lord, in Thy mansion of the skies,  
 Might I yonder sing Thy praises! - fain toward Thee my soul would rise,  
 Rise and look beyond the present, and Thine Ever-Presence see  
 In all and causing all, O Thou who bringest all to be!  
Oaya! oaya!

Listen to my song, O friend, a throbbing drum that flowers entwine -  
 Let my soothing song of heaven solace you, O masters mine;  
 May it from my heart out-blossoming like a rain of flowers fall  
 Till my hymns find grace before Thee, Ever-Present Lord of All!  
Oaya! oaya!

This is the poem, and it hardly sounds like any priestly  
 effusion. It is couched in characteristic Aztec poetical style, which  
 abounds in references to birds and flowers and allusions to natural  
 scenery, and seems like the spontaneous utterance of some unknown  
 poet whose heart yearned to know what was behind all the beauty of  
 nature that so stirred him, as we know from such poems that it did

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stir these men of old Mexico. The thing that seems most to impress him is this: great as is the beauty of nature, he has inward visions of something still more beautiful and perfect. That he can realize so vividly that there can be something even more beautiful than the utmost beauty of nature means to him that such a beauty, or else something even more perfect than that vision, must indeed exist somehow or somewhere in the universe, though he does not suppose that it is to be found on the earth. He rejects the view that something surpassingly greater than the beauty of nature might be a mere baseless creation of the fancy - his feeble and wholly imitative imagination would have no power to create anything of this sort. One glimpse of this ideal, and it is rather the things of earth that seem to be vain illusion (istlacauia) or obstructing appearances drawn in front of the view. It is the greater and not the less which must hold the greater truth. And so he is led to the thought of something still greater, of the Creator of all. There must be worlds made by the Divine Being that realize this perfection of which he can imperfectly conceive, worlds more closely related to that Creator than is this earth; and he feels something within himself ("no-yollo") that is kindred to these ideal realms. It would seem that a sense of vast, high, serene space fills his thoughts of these realms and is associated with the blue expanse of the sky. He finds no name for them so fitting as "heaven" - ilwioatl. He feels that his true destiny ends in this region where all is close to God - for this seems to be the sense of the ending of the next to the last or climactic stanza with its play upon the inner meaning of the Divine Name.

Brinton assures us that the poem is ancient, dating from before the conquest, and that the words yeuan Dios, "he who is (the Christian) God", which occurred in his text, were added later as explanatory, to show that the song was not idolatrous and was permissible to a Christian people.

Before proceeding to a detailed study of the text, I must explain the simplified spelling that I have employed in preference to the traditional spelling of Aztec based on old Spanish, which tends to obscure the etymology of words by representing the same sound in two ways, as c and qu for k, qu and cu for kw, z, c, and g for s. In order to preserve as much as possible the typical appearance I have chosen not to introduce any new letters like k (except for an unavoidable w) and not to use any letters for sounds which they have never represented in the traditional spelling. Remember then that hereafter when I write the letter c it is always hard, or like k, as in Latin and Maya. Hence I write cetzal for quetzal. The familiar digraph qu I also retain in its Latin value - its value in question - hence quicoatl for cuicatl. The sound of z or a soft s is always represented by z - hence ze and zan for ce and can. The sound of w is ordinarily represented by the digraph hu; I use w except when it is preceded by a or e, when I follow Sahagun and Molina in employing the diphthongs au and eu; ohua I write oa. Hence I have walcalac, wel, anach, yecteneua, nemoaya, for hualcalac, huel, yectenehua, nemohuaya.  
ahuach.

and so from now on Nahuatl will take the place of Nahuatl. As before, x has the sound of English sh, while ch is always as in church. I write the demonstrative particle in (the, that, which, etc.) separate from the next word, hyphenate possessive pronouns to the name of the thing possessed, hyphenate to the verb pronominal phrases like nonci, xitechmo, analogous to the French je l'en, il nous y, which precede it, also the verbal particles te and tla when they are not an inseparable part of the stem. I hyphenate the suffixed auxiliary verb ca, to be, to distinguish from the suffix ca of other meanings, and hyphenate all long or unusual compounds (in which the language abounds) whether nouns or verbs.

Now our poem bears the title Xopan-quicatl, Oton-quicatl, Tlamelauhcaoyotl - a spring song, an Otomi song, a plain (or melodious) song - and the word quicatl, song, will serve as a good example to illustrate several peculiarities of the Aztec tongue. Nouns in the singular take a suffix which may be omitted if the noun is used as a modifier like "iron" in "the iron box". It also may be retained in such uses. This suffix is tl for vowel stems and tli for consonant stems, and since by an invariable rule of Aztec phonetics t drops out between two l's, in the case of l-stems the suffix becomes li, so that such words end in lli. Here is a brief list of some of the most important grammatical forms:

Root - qui - follow, follow after, conform, pursue, seek, gather.  
verb qui, gather, acquire.  
reduplicated verb quiqui, model, mold, sculpture, carve.

+ Root - tla - set, put, place, a place.  
qui-tla, qui-tla-pan, adverb and postposition, after, behind.

+ Root - lo - turn, go around, cover.  
i-qui-lo-a, v. trace, delineate, draw, write.  
tla-qui-lo-a, v. decorate, ornament with designs.

+ Stem-forming element q  
quic, stem - rhythm, chant, singing, music, versification.  
quic-tli, n. song (rare) - quic-tli-n, songs.  
no-quic, my song. no-quic-wa-n, my songs. sing.  
quic-a, v. sing (he sings) - o-quic, he sang, quic-a-z, he will sing.  
quic-a-tl, n. song (common) - quic-a-me, songs.  
no-quic-a-uh, my song no-quic-a-ua-n, my songs.  
quic-a-ni, nomen agentis, n. singer, adj. singing.  
quic-a-l, nomen patientis stem, quic-a-l-li, what is sung.  
qui-quic-a, v. reduplicated and frequentative - sing away, carol, e.g. of birds.  
quic-ili-a, v. sing to, e.g. object a person (applicative or dative verb).  
o-quic-ili, he sang to, quic-ili-z, he will sing to.

The first word of the title gives us quicatl compounded with xopantli, growing-season, spring, summer. In compounding and derivation the tl or tli is either dropped or reduced to t or ti. Xopantli is

from a root pa  
word pantli,  
coming from  
"Song" is simply  
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dictionary;  
either something  
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direct, guide,  
flattened out  
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root of aci  
which I regard

\*Footnote. The  
a-tla-tl, dis  
especially us  
"void" as si  
privative pre

from a root xo, xu, xiuh, sprout, bloom, vegetate, grow green, and the word pantli, abode, found so far as I know only in compounds, and coming from the root pa, pervading, through, in, over, on. "Otomí Song" is simply a name given to a certain kind of poetical composition and does not mean that the poem in question was taken from the Otomies, any more than such a name as "French horn" indicates that the article referred to came from France. Tlamelauhcaoyotl is not in Molina's dictionary; it is rendered "Plain Song" by Brinton, and clearly means either something direct, plain, and simple, or something smooth, regular, and metrical; being an abstract noun from the adverb tlamelauhca, directly, straightly, correctly, from the verb melaua, tla, direct, guide, make clear, declare distinctly (cp. melaua, mo, become flattened out, prostrate oneself) from the roots me, smooth, even, straight, direct, and # lo, (lan), turn. Perhaps the word as applied to a song or poem means a smooth, flowing, lilting melody or metre.

The song begins: Oni-walcalac, ni quicani, nepapan xochi-tlal-pan, wel te-ellelcixtican, te-tlamachtican, oncan auach tonameyo clauhti-mani. -

"I have entered, I the singer, various flower-ground(s), greatly care-banishing places, enjoyment places, where (everything) dewily, radiantly, moist-extends, - "

An interesting word here is the verb walcalaci, enter. It is preceded by a phrase consisting of the sign of the perfect tense, o, and the personal pronoun ni, I. Verbs in the perfect bear another tense-sign besides; namely the apocoptation or end-clipping. When verbs end in a non-radical vowel the clipping is simply a dropping of that vowel, so that walcalaci becomes walcalac. The apocoptation is more essential than the sign o, which is sometimes omitted, and it is also required in the imperative.

This verb walcalaci is an elaboration of a simpler verb calaci, enter. Calaci consists of the verb aci, go into a fixed state, settle, set (sun), causative on aci-a, put on (clothes) assume, bestow, endow, invest, imbue, put upon or at; and the stem cal, interiority, extremely common as a noun cal-li, house, home, abode, place, interior, container (e.g. tlauil-calli, lamp, from tlauilli, light). Hence calaci might be rendered "assume interiority". The stem cal comes from the root o, ca, interior, and has the form of a nomen patientis from a verb ca, be or become in or at, dwell in, hence "what is dwelt in". This verb ca has however become merely a simple copula, to be. The root of aci is probably ac, with the meaning move over, transport, put, which I regard as a secondary formation from the root a, space.\*

\*Footnote. This is the very common root a, space, room, void, e.g. in a-tla-tl, distance-putter, spear-thrower, tlil-a-tl, dark abyss, especially used to denote liquid, water (a-tl, water) and to mean "void" as sign of nullification, doubt, interrogation, and negative or privative prefix - qualli, good, aqualli, bad.

Having thus analyzed the parent word calaci, let us return to walcalaci. Wal is a very common adverb meaning hither, to this place, toward here, coming. For its ultimate constitution see the list of root-compounds appended. It is much used in composition - e.g., yauh, go, wallauh, come (ly becomes ll by invariable phonetic rule). It gives to calaci the nuance of "come in" as distinguished from "go in". Thus the opening line means "on various occasions I have been in the position of one who has just entered a garden."

This is the next word to claim our attention. What sort of places are these which he sings of having entered? He calls them gardens, xochi-tlalli, literally "blossom land" or "flower-ground". The word xochitl comes close to having the same meaning as the English noun "bloom", being both singular and collective. It is moreover a word greatly used for the associations it evokes and the figurative senses it assumes - a favorite and characteristic expression of the poets. It consists of the root xo, sprout, bloom, which we saw in xopantli, and the root chi, form, shape, make, accomplish. The word tlal-li, earth, land, ground, has the form of a nomen patientis from the root tla, settle, down, set, place, fix. A cal-lalli is a house-plot; a xochi-tlalli is a flower-garden. It is well known that the Aztecs were quite accomplished in the horticultural and floricultural arts; indeed they seem to have had an almost Japanese-like love of flowers. Our poet may have in mind such magnificent bowers of tropical vegetation as were associated with the palaces of great nobles, places like the xochi-tlaltin of Montezuma with their aviaries and the collections of plants that made them true botanical gardens. The word pan suffixed to the stem xochi-tlal is a postposition into, essentially the same word as pantli but reduced to an adverbial function like that of ward in "homeward".

Our poet has another name for these garden-spots - te-ellelcixtican, a word of complex and interesting construction. The verb ellelcixtia, te, means please, delight, amuse, entertain, solace - it is literally to drive out or put outside trouble, pain, or care, ellelli. The verb cixtia has three meanings: (1) show the appearance of, resemble, belike, (2) make excuses, or be arrogant, "put up a front", (3) externalize, put out, put outside, emit, eject. All three come naturally enough from the meaning of its root ix, exteriority, outwardness (ix-tli, face, front, surface). Cixtia is a fixation of the transitive form c-ixtia of an earlier verb ixtia, which survives in the meanings look out, peer, spy, and, oppose oneself to another in combat. Brinton is certainly mistaken in alluding to cixtia as the causative of the verb ciza, go out. The process of making causatives in Aztec is phonetically very regular, and would never permit of changing ciza to cixtia. No doubt ~~xxxxxxxxxxxxxxxx~~ cixtia may be used as the causative of ciza, just as in English bring is used as the causative of come. Ciza comes from the root za, separation, isolation, modulated by a form of that very common root c,ci,ca, interior. It means separate oneself (from the interior).

As for ellel, the stem of ellelli, suffering, pain, it has the form of a nomen patientis from a verb elle that no longer exists

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If then ting something we shall prob produced this roots el-lel "pains", a t in a word, o sort of state which ellel everything i poet's imagin verbal stem "where?" and er, location ellelcixtia, meaning(not

Before Aztec as in coincidence, Wel is very Greek en and intensity an

The oth similarly fo pleasure in, the one into the probable root-compoun it with mach tlamachia, a placidly, we

\*Ftnote. An a-tlanti-co A-tl, water, And I daress some meaning water". But or any one e

but whose composition and general idea are easily discerned. The composition must be el-tle. The root tle denotes strenuosity, heaving, lifting, violence, passion, heat - from it come tle-tl, fire, ~~tlax~~ tle-co, rise, tle-co-teca, urge, accelerate, and probably (with change of vowel) tle-ti-a, burn. The stem el appears in composition carrying the ideas of labor or diligence and of abdominal viscera - used as a noun, el-li, it means the liver. Its basis would seem to be the idea of breathing, panting, blowing, breath, judging by the facts that el-pantli means the chest and that the root e includes in its general meaning that of blow, breathe, ~~tlax~~ as is especially evident in its reduplicated form ee, e.g. ee-ca, blowing, windy, ee-ca-tl, wind.

If then we think of el-lel, the stem of ellelli, as a word suggesting something like a fire that consumes the breathing or vital parts we shall probably be not far afield from the semantic process that produced this Aztec word for pain. Again, in the milder senses of the roots el-lel would mean a strenuosity of diligence, a taking of great "pains", a taking of trouble, a state of worrisome over-application, in a word, of "care". And of course it is the very opposite to this sort of state that is adumbrated by the word ellelcixtia, a state in which ellelli is ejected, thrown out, a "carefree" state in which everything is easy, peaceful, and happy. Such are the gardens of our poet's imagining; he calls them te-ellelcixtia-can, applying to the verbal stem the place-suffix can, which as an independent word means "where?" and which again comes from the root ca, interiority, container, location. Te is the verbal prefix which goes with the verb ellelcixtia, and when a verb requires such a prefix in a particular meaning (not all do) it must be carried over into derived nouns.

Before this word stands one of the two words that are the same in Aztec as in English, wel, - the other being on. It is a strange coincidence, but the meaning of wel is "well" and that of on is "on".\* Wel is very freely placed before verbs and other words like the Greek eu and its Sanscrit cognate su, except that it rather denoted intensity and thoroughness than good quality.

The other epithet applied to the gardens, te-tlamachti-can, is similarly formed from the verb tlamachtia, meaning (1) enjoy, take pleasure in, (2) enrich some one. The first meaning would seem to be the one intended. Those interested will find what I consider to be the probable composition of this word indicated in my list of root-compounds in the appendix. I might say that I do not connect it with machtia, learn, teach, or tlamachia draw designs, or tlamachia, apportion, arbitrate, but in the case of tlamach, mildly, placidly, we have a closely-related word.

\*Footnote. Another queer coincidence is that a-tlanti-co and a-tl, water, and the stem tlant, tlanti, settled, down, low. And I daresay that such a word-form as a-tlanti-z-tli would convey some meaning to a native, and one something like "place down in the water". But let no one think I am trying to derive the Aztecs, Toltecs, or any one else from sunken Atlantis!

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With the fondness for scenic description which has been previously noted our poem now glides easily into a vivid word-picture introduced by oncan, which is both a demonstrative adverb "there" and a conjunction "where". It is composed of the interrogative can "where?" and on, so that it means whereon, on or at which place. Auachtli, dew, (also written auachtli) appears to consist of the root chi or ch, form, to form, affixed to a stem aua meaning diffuse, evaporate, fume, vapor, from which au-ia (verb in ya, for aua-ya), be pleased, contented, the probable original meaning of whose sense of pleasantness is seen in the derivatives au-ia-c, fragrant, sweet, au-ia-ca-yo-tl, perfume. This stem aua would seem to be a root-compound composed of the roots wa, send, send out, and the previously-mentioned a denoting empty, vague, or undefined space.

The poet suggests the brilliance and light that suffuses the whole imagined scene, the sparkle of the dew and the flash of lustrous leaves, by the word tonameyotl, radiance, or "ray-gush", from the stem of the verb meya, flow, gush (root me, smooth, flowing), and the stem tona, radiate, glow, seen in the verb tona, glow, be hot, warm, and in tona-l-li, radiation, heat, light (metz-tonalli, moonlight) archaic day (tonal-amatl, book of days), tona-ya-n sunlight, sun, in the sun, tona-tiuh, the sun. The root of tona is to, send out, emit, radiate, spread abroad.

Now it should be noted that the tl-suffix is ~~omitted~~ omitted from the words auach-tli and tonameyo-tl. This is significant; it shows that these nouns are being used as modifiers, and since they can modify only the following verb they are to be regarded as adverbs rather than substantival subjects or objects. An analogy from modern colloquial English may illustrate this. Not long ago while in Albany, N. Y. I observed signs cautioning pedestrians with the words "don't jay walk". Now "jay" is a noun, even though it be a slang noun, yet here it is not used as a substantive but as a modifier, an adverb. It qualifies the action of the verb, making it mean to walk like a "jay" or according to the nature of "jays". Such free use of words as in an isolating language is more characteristic of colloquial than of literary English, but it is still more characteristic of Aztec, where answering to "jay walk" we have "heart know", yollo mati, and "church be saved", teopan mo-macixtia. The construction of auach and tonameyo in the poem is the same.

The verb here in a narrow sense is mani, extend, spread, (from root ma, extend), and ciauhti, "wetness", can be considered in the same construction as tonameyo, or it can be considered as forming a compound verb, for the stem in t or ti is typical of many compounds and such compounds of mani with noun stems or other verbs are very common. In them mani sinks to the rank of an auxiliary verb or formative termination indicating that the action of the verb is spread out in space. Such a suffixed verb often corresponds to an English adverb, in this case "all around" or "all along".

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But the bodiless idea of spreading evoked by mani is filled with substance by the stem compounded with it - ciauh~~ti~~, the syncopated t-stem of ciauh~~ti~~, rain-water, rain, general wetness, moisture. The form of this noun hints at a verb ci-sua (a-wa-ya), composed of the roots a, water, and wa, send, and therefore related to the sua of suach. This verb is known in its applicative form, ani-li-a, to water, irrigate. The resulting compound verb ciauh~~ti~~-mani would seem to be stative ~~xxxx~~ rather than active, denoting a state of generally extended moistness - composed of sparkling ~~xxxx~~ dew, as the two preceding modifiers tell us. The subject of this verb is ~~xxxxxxx~~ unexpressed or impersonal - "it is" or "everything" or whatever we may consider the poem to be talking about.

And now having called up this visual imagery, our poet proceeds to give us an impression of the sounds of such a garden.

Oncan quiquica in nepapan tlazo-totome, on quica-tlaza in coyol-tototl cauanti-mani in in-tozcitzin -

Where sing away various lovely birds, and drops down on (one) song as the coyol-fowl let go spreading their glorious voices -

Aztec verbs are made frequentative and intensive by reduplicating the first syllable; hence quiquica conveys the idea of continual volleys of song. The word tototl, bird, probably means crying out, calling, from the reduplicated root to, throw or send out, utter, etc., whence i-to-a, speak, say, tla-to-a, speak, tell, command, tla-to-a-ni, commander, chief, king, to-ca-i-tl, name, and others of similar sort. This word like our "fowl" is collective as well as singular.

Toto-me, birds, a true plural, is compounded with the stem tlazo, precious, dear, lovely, exquisite, sweet, etc., a general term of admiration and endearment. From it is formed the verb tlazo-tla-a, to love. It comes from the root zo, mollis, simplex, planus, to be soft, tender, pliant, smooth, flat, open, etc., whence zo-a-tl, a word for woman, zo-ci-tl, clay, zo-ci-ti-a, moisten, soak, zo-ci-yo-tl, mud, zo-tl, cloth, zo-a, unfold, open, zo-tla-ua, be languid, tired, zo-zo-ci-ti-c, soft, and others.

This stem tlazo is to be carefully distinguished from the verb tlaza, drop, fall, let fall, in which the tla is radical, not the case in tlazo. Tlaza is a fusion of the roots tla, down, settle, and ~~xxxxxxx~~ za, separate. This verb is here compounded with the stem quica, song, or sing, which characterizes and defines the substance of the falling action. It is a case of what is sometimes, but I feel mistakenly, called an "incorporated" noun object. A noun stem prefixed to a verb should not be considered an object in the same sense as the prefixed personal pronoun object or the true noun object placed almost always after the verb. The phenomenon can be better understood as one of simple compounding, in which the relation

of the subordinate element is not specified as object or anything else but left indefinite to be decided by the context. The construction is the same as with auach above, such "adverbial" nouns differing only in that other words, like pronouns or verbal particles, happen to intervene between them and the verb-stem proper. It is true that the compounding of a noun with a verb may take the place of an English direct or indirect object, but again such a compounded stem may have an instrumental or locative or descriptive significance, and it always serves rather to adumbrate a general idea than to denote a single individual thing. For instance, tlaxochi-iquilloa, as used by Sahagun, does not mean to decorate a flower; it means to decorate (gold ornaments, etc.) with floral designs.

These prefixed stems are essentially modifiers or qualifiers: they represent constructions like "to jay walk" or "to joy ride": they belong like all word-compounding to the isolating or Chinese-like form of syntax, and Aztec, for all its tendency to fuse roots into compound stems and to synthesize long words, is in many ways not far removed from such isolating tongues. One is struck by the similarity of Aztec sentence syntax to the "logical" syntax of English or Chinese and by its dissimilarity from the syntax of a highly-inflected language like Sanskrit, but if one compares typical long Sanskrit and Aztec compounds, only resemblance is seen. Whether the compounded stem is incorporated in the ~~xxxx~~ sense that tmesis occurs, inserting the stem between the verb-stem and its prefixed particles after the manner of our "split infinitive", ~~xxxx~~ is a matter of secondary consequence and often of the speaker's choice. The Aztec tlaxochi, te, mo, ci, etc., are more loosely attached than purists at least would regard the to of our infinitive as being. We may have yollo nite-mati and nite-yollo-mati, on c-eua and c-on-eua. As in English, so in Aztec, the parts split off have a merely auxiliary function; splitting the actual stem of a verb is unheard of in either. There is no grammatical subject of on quica-tlaza; it is impersonal, and the on tells us that the action is carried "on" or "onward" to its resting place.

The little demonstrative and relative particle in is the most important and many-sided word in Aztec syntax. The nearest word in English is that in all its possible senses, but still in must often be translated "the" or "a" or "the one that" or "in regard to which". Placed before verbs it makes them dependent; in what way dependent being understood from the tense or mood, or from another conjunction with it, or often only from the context, as with our that. Like that, it introduces purpose and result clauses and indirect discourse and is often a relative pronoun, both nominative and accusative. It is placed before nouns to which attention or verbal action is directed, even to becoming a sort of sign of the accusative. It might be called an article if by this be understood neither a definite nor indefinite article but simply an articulating article, whose main function is to link together the phrases of the sentence, both setting off and subordinating to the main thought that thought into which it leads. In the above lines the first and third

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in are articles before nouns, the second is really a relative pronoun that or which referring to the action of the verb quica-tlaza and involving it in the action of the next verb. But the exigencies of correct English require translating as instead of which. This demonstrative in should not be confused with the possessive personal pronoun in-, their, which was probably once ia or i-me, owing its present form to a phonetic rule which prohibits m at the end of a word. The original m remains, at least in some cases of dialects, before vowels, e.g. Sahagun writes im-altepeuh, their city.

The action of the coyol birds is described by another construction with mani dispersive, the characterizing stem being derived from the verb caua, leave, forsake, let go, let, release, relinquish, desist, another form of result produced by combining the roots a, space, void, and wa send off. The c I regard as the verbal prefix fused to the stem, though the g of interiority may be suggested by it. The stem looks like a derived noun cau-n-tli cau-n-tli. Tozoitl, the singing voice, comes from the root to, throw out, radiate, utter; z is an affirmative used in making nouns, rather uncommon except in the very common formation -li-z; the whole word to-z-ci-tl looks like a secondary adjective form from an earlier to-z-tli. The tl is replaced by the extolling, admiring, and reverential suffix tzin, which conveys an impression of splendor or nobility, the whole expression in-tocitzin answering to the epithet "silver-throated" in my translation.

The thought of these sweet sounds brings to that other singer, the poet, thoughts of the Creator of all, and leads him to say of the birds' notes

- in c-ellelcixtia in Tloce in Nauaoc. - that delight the Ever-Present Lord - calling the Supreme Being by the divine name distinctive of Aztec monotheism. Exactly what this name meant to those who called upon will probably always remain a mystery. What it seems to say is "the Near, the All-Around". It is formed from two adverbs or postpositions; tloce, near, close, connected with, pertaining to, and nauaoc, near, neighboring, around, associated. The last is used in phrases like "the surrounding country" and is found in the name of the chief region of Aztec culture, a-nauaoc (Anahuac), "around the water" i.e. the lake of Tezcuco. Both words are substantives in what might be called a locative case, i.e., bearing the locative postposition -c, in, but of neither the substantival meaning nor the radical structure of these words am I positive enough to make definite statements. The locative and adjectival c also appears in the form ce, and then has an adjectival, a generic, and hence also a collective force, and is used to form certain plurals. The divine appellation has evidently been formed by expanding the suffix c of the two adverbs to ce. At any rate we know that the ideas expressed by these adverbs dilated into a lofty philosophic conception of the Deity as an all-encircling Ens Entium; according to early authorities (see Briarton and footnote) the term conveyed a sense of the immanence of God in all things and of

His omnipresence in all space - no doubt also, judging from the ordinary meaning of the words, a sense of His enfolding nearness to His worshiper wherever the latter might be.\*

The singer now seems to realize that the most important thing that he has gotten from this music of nature is not the mere sense-impressions of sound but something deeper, which he calls the root of song. Perhaps he feels as most of us have felt at the sound of some snatch of melody heard at some certain time or at some inexpressible effect of hidden meaning coming upon one with the glimpse of a certain scene. Observe his language at this point.

Oncan ni-caci in quica-nelwayotl in ni quicani, tlacazo amo tlalticpac in peuh yectli yanquicatl - There I hear the root of song, I the singer, surely (it is) not on earth that i.e. where) first began goodly poetry -

The verb caci, hear, perhaps originally "take in" appears to come from the root ca, interiority. The word nelwayotl not only means root of a plant but foundation, fundamental, substrate, essence, which is the sense it has here. Its own "root" is lo, lu, lw, go or be around, turn, be round, encompass, one of the commonest Aztec roots. Since the later Nahuatl speech will not tolerate an l at the beginning of a word, this root picks up a prosthetic vowel, usually i, when it forms verbs. The first step in the genesis of nelwayotl was probably a verb i-lo-a, go around, cover; this came to be used only in the middle voice and the voice-prefix mo, m- fused inseparably with the word, as very commonly occurs, resulting in a verb miloa go around, wrap, now known in the form of a reduplicated intensive mimiloa, roll, turn over, overturn. It has been mentioned that the voice-prefix must be retained before derived nouns. In the middle voice however the form of the prefix used before nouns is ne, self, instead of mo, himself, itself. Thus mo-namicti-a, marry, yields ne-namicti-liz-tli, marriage. Again, prosthetic i usually drops after vowels; mo-zcali-a, revive, ne-zcali-liz-tli, resurrection. Further, pre-vocalic o regularly syncopates to w when a word is lengthened; a-pano, cross water, causative a-panw-ia, to ford. There are two suffixes corresponding to English ness; liz and yo. It is then clear that an abstract ~~xxxxxxx~~ noun in yo from the original verb m-i-lo-a should have the form ne-lw-a-yo-tl, and mean something like enclosedness, covered-over condition, hence state of lying underneath.

\*Footnote. Sahagun defines Tloce Nauace as "creator et servitor mundi" and does not hesitate to use the word in his Aztec version of the Scriptures. Molina defines it as "cabe quien esta el ser de todas las cosas, conserverandolas y sustentandolas." - "encompassing one who is the Being of all things, preserving and sustaining them". What does Nezualcoyotl say? His doctrine has been handed down in the words "ipan in chiconauitlamanpan m-exiti-ca in Tloce Nauace, palnemoani, te-yocoyani, izel Teotl; oxi-yocox in ixcoch cexcoch, in ittoni iwan amo ittoni" - "in the ninth order (of spheres or heavens) abideth the

The song which d seems to fee its source i is tlalt-icp tlal-tli (la based on the root ic, ass As for tlac word azo, ev tlac, state etc.), tlac "a certain", and iz-tlac

The It is a noun hence means our word nov apparent ele particular s semantic con after, and y hence to pro As for the a ently invest the more emp sense is "bl worthy poeti peua begin ( with the ten with celesti

Tla in tlazo-coy zaquan-totot come hearing raise it unt

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\*Footnote. Azt tlacatl day aggregate (r calendar dat is ~~xxxx~~ ton radiation, 2

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That there is a quality about this perfect essence of song which does not belong to physical things, is the way our poet seems to feel about it, and he expresses this feeling by saying that its source is not on the earth. The regular expression for "on earth" is tlalt-icpac, in which the t-retaining stem of the original word tlal-tli (later tlal-li) bears the postposition icpac, all over, based on the root pa, pervading, throughout, over, combined with the root ic, association, contiguity, "with", and the locative suffix e-. As for tlacazo, "positively" it is an emphatic compounded of the word azo, evidence, fact, truly, for instance; reinforced by the stem tlac, state of being set, fixed form, corporeity (from root tl, set, etc.), tlac-tli, body, related words being tlac-a-tl, person, man, "a certain", tlac-a-tli, day, daytime\* (distinctness, clear visibility), and iz-tlac-a-ua, form an appearance, illusion; deceive.

The word yanquicatl is not a compound of quicatl, song. It is a noun from the adjective yanquic, new, recent, new-born, and hence means new thing, original production, composition - compare our word novel. Possibly however the appearance in the word of an apparent element quicatl gave the meaning a lean toward the particular sense of poetic or musical composition, making the word a semantic conglomerate. Yanquic is composed of the roots qui, follow after, and ya, go, advance, in the form of an old noun-stem ya-n - hence to proceed as an after-occurrence, be another and new one. As for the adjective yectli, whose etymology I have not yet sufficiently investigated, it is one of the two words for "good" and perhaps the more emphatic and elevated. In the compound yec-teneua its sense is "blessed". The whole term yectli yanquicatl is applied to worthy poetical works. The verb peuh is the apocopated perfect of peua begin (from root pe, spring, start, burst forth, dash forward) with the tense -sign o omitted. Our poet connects yectli yanquicatl with celestial realms: -

Tlacazo ompa in ilwicatl itic wal cacizti in c-on-eua  
in tlazo-coyol-tototl, in cim-eullia in nepapan teo-cecholme,  
zaquan-tototl, - Surely there beyond within the heaven should  
come hearing of how sweet coyol birds raise it (their songs),  
raise it unto the various divine quechol birds and the zacuan-fowl.

Tloce Naaace, the vivifying One, the Creator, the sole God; He created everything whatsoever, apparent and unapparent."

\*Footnote. Aztec has three interesting words for "day", the chief being tlacatl daytime and zemilwitl "date-in-general" from zem totality, aggregate (root ze, unity, union) and ilwitl recurrence, calendar date, festal day (root lo round, cycle, etc.) Less common is tonalli, which as we have already seen means primarily radiation, glow of light and/or heat, hence sunshine.

Ompa (on pa), on beyond, out there, yonder, consists of the pervasive root pa, through, over, beyond, and on. Ilw-i-ca-tl, sky, heaven, is from the root lo, lw, go around etc. and means the encircling, the circumambient. An adjective ilwica with this meaning survives in the phrase ilwica atl, ocean, i.e. surrounding water. Compare ilwi-z, diversely, differently, i.e. turning or turned, diverted. Aztec cosmology conceived a series of enveloping heavens, corresponding to a hierarchy of spirits and gods of successive ranks. Itic, within, in the interior, is a postposition in the form of a c-locative of a noun from the root i, it-, draw in, interiorize, absorb. Cacizti is a future gerund formation modulated by the adverb wal, hither, coming. Eua, lift, raise, is from the root e denoting expansive and lifting force, breath, and air, with the verbalizing root wa, send, and euilia is its applicative or dative form, "raise to, for, unto". Aztec renders the dative relation not by a case-inflection of the noun but by a special form of the verb, which denoted that the action affects the object after the manner of an indirect object. Cim, cin, is the plural of c, ci, and anticipates a plural object - in this case cecholme.

The stanza is concluded with the remark - oncan tlacazo ci-yecteneua in Tloce in Nauace - where surely they call blessings upon the Ever-Present Lord. The only new word ~~xxxx~~ here is yecteneua, in which yec, the stem of yectli, is prefixed to the verb teneua, represent, call, name, tell; from the root ne, neu, no, sameness, alikeness, identity, self, and allied to nenan, both, neneuhci, alike, equal, similar, neneulia, be or set equal to, liken, compare. In the Aztec Lord's Prayer yecteneua is used for "hallow".

The next stanza appears to contain, in the text given by Brinton, some mistakes in spelling and division of words. Thus the nicagua ni of that text means nicagui in ni, which I spell ni-caci in ni. The notlalnamiqullizo quinpetlatiquiza means notlalnamiqulliz oc quinpetlatiquiza, or my no-tlalnamiciliz oc cin-petlati-ciza. The iniquinalquixtia means iniquinalquixtia, or my in-nicin-nalcixtia. Here the singer meditates upon the flash of perfect beauty that has come to him; he strives to recapture its essence and to let his imagination rise above the things of earth toward a fuller apprehension of those aerial heights and their inexpressible ~~xxxx~~ joys.

Ni-yol-poxaua in ni-caci in ni quicani; acociza in no-tlalnamiciliz, oc cin-petlati-ciza in ilwicame; - I labor inwardly over what I hear, I the singer; - may it rise, my mind ~~xxxxxxxx~~ (or memory) and go shining forth to the heavens; -

The limits of reasonable length will not permit me to continue the minute analysis to their roots of all the words where this might be done, valuable as such study is for disclosing the internal semantic structure of the Aztec tongue. We must pass

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rapidly over the first word, noting only that it is composed of poxaua, labor, and the stem yol denoting inner life, and over acociza, rise, which looks like a development of ci'a, go out, move outwardly. Tlalnamiciliztli, memory or mind, perhaps also imagination, is possibly from namici, join, add, reduplicated nanamici, be auxiliary, aid, help, join in, causative namictia, join, connect, etc., with the stem tlal meaning set, definite; hence denoting a constructive visualizing faculty. Peptlati, compounded with ciza, means shining, lustrous, brilliant, and its stem petla is compounded of the roots pe, spring or burst forth, and tl, set, definite, plain, clear, vivid.

And so the verse concludes: n-elziziwiliz, eecayo-tiuh, in nicin-nalcixtia in ompa on tla-tensua in zaquan witzitzil in ilwicatl itic. My sighing, grow into a wind, that I may penetrate them (the heavens, ilwicame), the far-beyond where are calling the zaquan-colored (golden) humming birds in the interior of heaven.

In elziziwiliztli we have the stem el signifying vital breath, which has been discussed above, compounded with the verb ziziwia denoting sighing, tiredness, or the like. This verb, unusual alone, is related to ziana and ziziana, be tired, weak, and to ziwatl, woman, and like them is from the root zi, ~~uniform~~ uniform, smooth, mild, gentle, weak. The next verb is formed from the noun e-e-ca-yo-tl, windiness, from e-e-ca, windy, blowing, e-e-ca-tl, wind, from the reduplicated root e-e (see above). The irregular and defective verb tiuh, go, start, be going to (do something), lead into, become, is used only as an auxiliary verb compounded with other verbs or with nouns to form inchoatives, inceptives, and incipient futures. Here it produces a verb meaning to rise and blow stronger and stronger like the wind. Nalcixtia, pass through, penetrate, is not as stated by Brinton a causative of "nalciza". It is a compound of cixtia, send out, eject, project (q.v. supra) and the adverb and postposition nal or anal, meaning like Latin trans, from the root an, na, extend, increase, (secondary root from n, space), whence an-a, grow, increase, multiply, and reduplicated stem 'nan (for an-an) reproducing, secondary, in e.g. nan-tli, mother, na-nan-ci-li-a, respond to, answer.

And now comes the deepest and most philosophical part of the poem. The poet shows himself a thinker as well. He seems to realize perfectly well that the heavenly garden of his mind's eye is only a figment of the poetic imagination, as far as concerns judging it as a matter-of-fact description of any real paradise-like place. But what he also realizes is that while that imaginative construction itself is not truth, the direction or tendency of it is all in the direction of a certain truth; it is in the direction of the surpassing goodness and greatness of the all-embracing Spirit and Cause of the universe, which must be greater and better than anything that the most poetic and beauty-loving imagination in the world could construct. To be sure, says he in effect, that object of faith which I have called "heaven" may not be anything like these gardens of which I am telling you, in which I seemed to get a glimpse of heaven. But what I am certain of

is that it is something no less and no worse, that it is indeed something far superior and far better than this construction of mine. He believes that his fondest hopes will after all be fulfilled, by being exceeded.

Moreover, he feels that the part of his nature which can rise above earthly things and sense the existence of a harmony, a quica-nelwayotl or a yectli yanquicatl above that of all terrestrial bird-songs and other harmonies, is a nature allied to that of the Tloce Nauace Himself, which can tend more and more ~~tawá~~ toward His divine nature and so at last enter into that beatitude that he calls heaven. That those interested may follow the poet's thought with the utmost closeness I shall give this most important stanza in word-for-word interlinear rendering.

Auh nnewiampa nic-tlachialtia in no-yollo, auh  
And as everywhere I look into my heart ~~xxx~~ why

tlacazo nelli in amo ixcich c-eua in  
surely the truth (is) that not at all lifts up (sings) that

tlazo-tototl; tlacazo ye oc tlá-panania in ilwicatl itic  
sweet bird; surely <sup>then</sup> yet-more transcends what in-heaven

i-yollo in Tloce in Nauace mo-chiuhti-ca, ca ~~xxxxx~~ intlacamo  
his heart the Tloce Nauace self-making -is, while not-until

teufo-tiuh in no-tlalnamiciliz, azo wel cin-nalcixti-ca;  
divinity-tends my mind, is-it-that wholly them-entering-it-is;

ittazo in tlá-manizolli in ilwica-c ic papaci  
there-will-be-seen the marvelousness in-heaven whereby rejoice

in ilwica -c tlazo-totome ixpan in Tloce in Nauace.  
the heaven 's sweet birds in-the-presence-of the Tloce Nauace.

The word auh, and, and so, as, when, is a closely connecting and mildly subordinating conjunction, more like the Semitic wa than our and, which corresponds more to the Aztec iwan. The verb tlachialtia, look into, through, explore, has the form of a denominative verb from a noun tlachial-(t)li, which in turn would be the nomen patientis of the simpler verb tlachia, look at, related to chia, expect, await; both from root chi, form, shape, aspect, make, etc. The next noun, yollotl, heart, kernel, nucleus, central region, inner man, is an important one. It comes from the root yo, be alive within, live, exist, be inner, hidden, obscured; whence yo-ca-uh, thing, yo-co-ya, create, invent, construct, yo-a, darken, become night, yo-a-l-li, night, tlá-yo-a-l-li, darkness, i-yo-w-ia, feel, suffer, endure, be in, dwell in, i-yo-tl, soul, spirit, breath, yo-li, live, be alive, yo-li-liz-tli, life. The stem yo-l that appears in yoli is not used as a word by itself but is very frequent in compounds, with the meaning of inner life, mind, soul, as in yol-qui-ti-a

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Tas  
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related to th  
te-pan over,  
per, trans.\*

Mo-  
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with mo, show  
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subject, and  
our "the house  
becomes equi  
chiwa, make.

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\*Footnote. Some  
are: pa, ve  
over, ic-pa-c  
wash; pa-c-i  
exuberant, l  
intermediary  
n. stem pal,  
pa-l-li, a b  
wetness; wit  
pa-ti l., fl  
pa-ti-yo-tl,  
denominative  
pa with root  
pa-leu-ia (p  
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multifarious

confess (root qui, pursue), yo-l-lalia, comfort (tlalia, set, settle). From this stem yo-l comes yo-l-lo-tl for yo-l-yo-tl.

The stem nel, nel-t appears in nel-ti, agree with, find true, confirm, assure, prove, nel-li, surety, truth, as adverb truly, certainly, nel-ti-liz-tli, truth; and in compounds like nel-itoc, declare true, affirm, certify, nel-toca, call true, believe in. Its root is probably ne, same, equal, alike, identity, self.

Taa-panauia is the tla-voice or definitely transitive nuance of panauia, go beyond, pass, surpass, exceed, transgress, overcome, conquer; which has the form of a derivative in ya, ia from pano, go through, over, across, by, pass, cross (panauia for pano-ia), related to the postposition pan, throughout, in, and the preposition te-pan over, and coming from the root pa, pervading, through, over, per, trans.\*

Mo-chiuhti-ca is a continuative or progressive present tense formed as in English, with the stem of a verbal noun chiuhti, making, and the auxiliary verb ca, to be. It is in the middle voice with mo, showing the subject acting by or for himself. Sometimes this middle voice means that the action is closely associated with the subject, and our logical object is then placed as subject, as in our "the house is building". Aztec calli mo-chiuhti-ca, when it becomes equivalent to a passive voice. The underlying verb here is chiwa, make, do; root chi, form, shape.

Intlacamo is from intla, if, when, which is simply in tla, i.e. the conjunction in, that, and the root tla in the meaning "set thing", given condition - hence; "that being given". Tla is sometimes used alone with the meaning of a certain thing or matter, something. Intlacamo has the negative adverb amo, not, suffixed with intervening euphonic o, and hence the expected meaning would be

\*Footnote. Some other semantically interesting words from the same root are: pa, verb, to tinge, stain, dye; pa-c, postposition over, all over, ic-pa-c, ~~the~~ id.; pa-atl, ointment (atl, fluid); pa-c-a, bathe, wash; pa-c-i, be joyous, merry (probably originally run over, be exuberant, lightly mobile); stem pa-l 1. substantive - transfer, intermediary, medium, means, postposition pal through, by means of, n. stem pal, palli, in composition meaning hand; stem pa-l 2. in pa-l-li, a black dye, pa-l-ti, soak, moisten, soften; pa-l-ti-liz-tli, wetness; with root an, grow, pal-an-i, grow soft, mushy, putrefy; pa-ti 1., flow, melt, dissolve; pa-ti 2., close over, heal, get well; pa-ti-yo-tl, pa-ti-o-tl, noun, transfer, exchange, payment, price; denominative vb. pa-ti-o-a, cost, be worth; pa-ni, prep. over; pa with root lo, turn, pa-lo-a (turn soaked) a. soak, moisten b. taste; pa-leu-ia (pa-lo-ia, turn across to), help, aid, do a favor, grant. These instances will help to show how an Aztec root develops its multifarious derivatives.

"unless", and so Brinton translates. But this translation does not fit the context very well and perhaps the negative sense attaches a little differently - "no, but if - ", "not until".

Tenyo-tiuh is a crescentive formed with tiuh, meaning to grow more and more according to ten-yo-tl, divine nature, from teu-tl or teo-tl, god - see the root teu in the appended root-list. Ittazo is the future tense, passive voice, of the verb itta, see. It is an euphonic corruption of ittazlo. The passive, or perhaps more accurately the reversed voice of the verb, is formed by suffixing the root lo, "turned around". The full meaning of itta is come upon, discover, discern, see, look at, inspect, visit, and it appears to consist of the stem or root it, bring, carry, a form of the root i, it-, draw inward, come, bring, and the root ta, origin, source - hence bring in to or come upon the source (e.g. of report), the truth; find out, detect, discern.

Tla-mauizo-l-li, wonder, is a nomen patientis from mauizo-a, tla, admire, marvel at, a nuance of mauizo-a, be or become great, famous, mighty, glorious, which in turn is a denominative verb from the corresponding adjective mauiz-o (for mauiz-yo); and this again is from a noun-stem maui-z used in composition and derivation in the same sense with more or less lean toward the original meaning of awe-inspiring, respect-evoking quality, majesty, as in maui-z-ti-ca-yo-tl, dignity, authority. This stem is in fact directly from the verb maui, fear, dread, stand in awe of, respect, which is probably ~~xxxx~~ m-ai, the m-voice of an ~~ixxxx~~ older verb ~~xxxxxxx~~ a-w-i, ai, meaning avoid, give room, draw away from, from the roots a, space, room, void, and wa, send, move away.

Papaci, rejoice, is the reduplicated intensive of ~~ixxx~~ paci, which is analyzed in the footnote on the root pa, above. The preposition ixpan, before, in front of, in the presence of, is simply the root ix, exterior, face, front, with the common locative element pan.

In the next stanza the poem rises to its climax. The things of the earth in their mutability and perishability ~~xxxx~~ now become to the poet like unfixable phantoms, and he yearns to exchange them for the permanent happiness of heaven, which by striving toward he may enter after death in place of the dark underworld of Mictlan reserved for the bulk of humanity.

Cenin, ah, ni-chocaz in tlalticpac; ye nican  
How long, ah, shall I weep # on earth thus here

tlasezo onca nemoaya ni - no - ztlacauia; nic - itca  
truly having dwelling I myself delude; I (can) say

azo zan  
indeed only

in ~~xxxxxx~~ to  
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azo zan ye: ixoch in nican in tlalticpac on tlami  
indeed only this: all here on earth ends upon

in ~~xxxx~~ to-yolia; -  
our living;

Before taking the second half of the stanza, a few of the above words may be discussed, e.g. ni-can, here, literally I-where, where I am, and onca, to have, also written on ca, literally to be on, to be in contact with or "on one's person". The verb meaning deceive, iztlacauia, appears to be verbalized, probably with the verbal element -wia, from a meaning like phantom, apparition, show, empty show, the elements of which are the stem tlac, tlaca, bodily or visible form (see above) and the root iz, hither, back, returning, arrival, which is also a sort of demonstrative and surprise-particle, calling the attention - here! behold!

Tlami, to cease, end, is from the root mi, go, pass, perish, combined with the root tla in its static and terminative sense - become set or fixed, ~~xxxx~~ stop, settle, rest. Brinton's version gives "ontlamian toyolia" in which the "tlamian" is undoubtedly ~~xxxx~~ a naive ear-spelling of "tlami in".

The two words used for "life" in this stanza ~~xxxx~~ - nemoaya and yolia - are verbal or abstract nouns formed with the usually verbal element ya. In fact they look more like verbs than nouns, since they do not take the usual -uh of vowel stems in possessed construction - at least the latter does not. Yol-ia is of course another word derived from the stem yol which we have already examined. The other word is from a verb nemoa, live, possibly for nemiwa, and a development of the more common verb nemi, go, walk, move, be going, animated, alive, and especially live, dwel; reduplicated nenemi, go along, proceed; appocopated stem in the adverb nen, gone, in vain. The root is mi, go, pass, perish, die, which curiously enough has developed a significance quite opposite to the last in this derivative, so that ne-mi-ni, alive, and mi-ci, dead (whence mi-c-tlan, Hades) are forms of the same verbal idea, the former in its progressive, the latter in its perfective nuance. Possibly some feeling for these underlying root ideas is influencing our poet as he passes from the derivative of ne-mi to the related tla-mi, and then to the entirely different word for life - perhaps indeed two different concepts of life, the nem-concept and the yol-concept, are here being contrasted, the former partaking in itself of the nature of evanescence, the latter with a deeper connotation of mysterious hidden being, springing from the sense of the root yo, from which the poet seems to make a natural transition into direct apostrophe to the Divine Source of life:

- maquele (t) euatl in Tloce in Nauaoe ma ompa inwan  
O that These the Tloce Nauaoe let beyond those things

ni-mitz-no-quicatili in ilwica-c mo-chanecauan, ca no-yollo  
me-Thee - sing - to in-heaven Thy habitations, for my soul

saa, ompa n-on-tlachia, in MO-NAUAC,  
would rise, beyond I would look, "surrounding-with-Thee"(?),

in MO-TLOC, ti - pal - nemoa.  
"close-with-Thee"(?), (the One that) we through-live. (live by)

The word "suatl" in Brinton's text does not make sense:  
evidently the letter t was inadvertently left out.

The climax of the song is here, in condensed elliptical style and involving an extraordinary play upon words. The adverbs or postpositions tloc and nauac are used in such a way that they are seen to refer to their part in the name Tloce Nauace - hence they would not convey their ordinary meaning but would tend to take on a mystical sense, becoming broken forms of the Divine Name, and shadowing forth a state of heavenly affiliation through the same meaning, whatever it is, that has in this name become the signature of Deity. It is of course impossible to translate this trope into English.

The final phrase is also a trope, an allusion to another Divine epithet: i-pal nemoa, "through Him one lives", or in i-pal nemoa, "the One through whom one lives". The change consists of turning the possessive pronoun i, his, into the nominative pronoun ti, we, which automatically makes pal an adverb modifying the verb instead of an independent substantive. Thus there is born a new verb, pal-nemoa, conveying some such sense as the receiving of life and existence from God according to the idea of the phrase i-pal nemoa. Certainly the poet has compressed a good deal of meaning into the final words of this climacteric stanza.

The last stanza is the coda of the song, a subsidence from heights of feeling into tranquillity, a dying away to the muffled drum-beat with which the singer accompanies his song upon the wewetl or the teponaztli, a gentle coming down to earth again in which the bard resumes consciousness of his audience and addresses them in the complimentary terms customary at the end of such a recital. Yet he does not forget the Tloce Nauace, whose name is the last upon his lips.

Ma xi - cac in no-quio, in ti no-cniuh,  
Do thou hear my lay thou my friend

xochi - wewetl inic tzotzonaya, ilwica - quicatli  
a flowery drum whereby there was beating, a heaven-song

in ni-zeuaya, io ni - cim - elleloixtia in teteuctin:  
that I soothed with, whereby I them solace, the nobles;

xochi - qu  
florally it

nic-tzetzelo  
I was rain

ixpan in  
before the

Her  
particle ma  
root ma, ext  
develops. Th  
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imperative in  
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xochi - queponi in no-yollo izci xochitl  
florally it blossoms so that from my heart behold! with bloom

nic-tzetzeloaya ic mali-tiuh in no-quicatzin  
I was raining it down, whereby may honored grow my best-of-song

ixpan in Tloce Nauace.  
before the Tloce Nauace.

Here we have an imperative and optative construction. The particle ma is the sign of these moods - it probably is a form of the root ma, extend, in the nuance of reach out, give, which that root develops. These moods use a different pronoun of the second person singular from the indicative - xi instead of ti. The verb in the imperative is apocopated. But how far the ma may carry the wishful strain is not clear; possibly through the entire stanza, and so I have rendered it in the metrical translation though not in the above interlinear one. Clearly, in this stanza the singer is not so much reciting facts as expressing a hope (couched in highly figurative language) that he has pleased his audience, and as it were dedicating his song to the glory of God.

No-que introduces the less common word quietli in place of quicatl, no-cniuh the word icniuh, friend. The form of the latter points to a verb icniwa, of which a variant is icnoa, have sympathy for. The roots are ic, association, with, and n, ne, ni, no, self. Some of the verbs that follow are in the imperfect tense, designated by the termination -a-ya. I shall discuss only one of these verbs, zeui, to quiet, rest, soothe, allay, please, not to be confused with zeua, grow cool, cold, though both words are from the same root ze, oneness, agreement, uniformity, concord, peace, hush, passivity, etc., also agreeableness, pleasantness.

Teuctli, lord, noble, is very likely from the same root as teu-tl or teo-tl (both spellings are common), a god. Here, according to Brinton, it is a respectful term by which the singer addresses his audience, and it is associated in this use with our poet's favorite word ellelcixtia. The verb queponi, to blossom out, bloom, is not related to que-pa, turn, return (~~ix~~ following-over, i.e. over again), but is from root po, expand, open, and root qui, que, after, following (que-po; - finally-open, open after suitable preparation, development)

Brinton does not translate the nouns no-yollo and xochitl as adverbial modifiers of the verb tzetzeloaya, but this common construction is my interpretation of the sentence. Mali-tiuh is a crescentive from a stem which is probably not that of malia, mamalia, carry, but the stem seen in malwia, honor, regale, treat well, and and also that in malina, wreaths, twine. I incline to the opinion that the last-named meaning is the original one, the roots being lo, turn, and ma, extend (ma-lw, continued-turn), and the stem-form properly malw, as in ma-lw-ia, which has in other cases become mal through the tendency of l to absorb u- and w-sounds.

And so the song ends, as though the singer's low bow to his audience were insensibly transformed into the posture of prayerful devotion, leaving him silently bowed before the Divine Spirit, the ever-listening Tloce Nahuac, as the last strains die away.

This poem is but one of many in Brinton's collection and is a fair sample of the interesting things to be found therein and elsewhere in the Aztec literature. The language of the poems will be found to be often of great beauty and melodiousness. A scholar and linguist of my acquaintance often remarked that Aztec names reminded of something that somebody had said about Gothic architecture: that they had "a quality of rigidity and of frostiness". He would have been delighted with a stanza which I cannot forbear quoting from the first poem of Brinton's collection, which bears the name of Quica-pauhucayotl or "Song-Prelude", a verse in which the crystalline quality of the sounds blends happily with the imagery.

Tlacazo nioan nemi ye ni-caci in i-xochi-quioatzin  
Right here a-walking, then I hear its Flower-sweet-music

yuhci tepetl cin-nanancilia; tlacazo itlan in  
as when the crags are echoing; right down-in the

meya - oetzal - atl. xiuhtoto - a - meyalli. oncan mo-quica,  
flowing emerald water, the turquoise water's flow, where it sings,

mó-motla, mo-quica; nanancilia in zentzon-tlatolli. azo  
it splashes, it sings; answers the mocking-bird,\* yea,

cin-nanancilia in coyol-tototl ayaoach-izauaati - mani,  
answer the coyol birds trilling-warbling all-around,

in nepapan tlazo-quioani totome. Oncan ci-yectenena  
all-sorts-of sweet-singing birds. There they sing-praises-to

in tlalt-iopa-ce, wel te - tozoa - tem - ce.  
all the world, all with their voices filled.

I induced my friend to introspect upon his impression of this "frostiness", and he analyzed it as one of a finely articulated structure, like a filagree, composed of minute, sharply cut pieces cohering in clusters. In other words he had received a certain impression from the fact that the Aztec vocabulary is largely built up out of a small number of elements, stems and roots, that are repeated over and over in the words, in all sorts of combinations, like the varied arrangements of the tiny pieces in a kaleidoscope.

\*Footnote. Literally, "the four-hun-red-voiced!" "Turquoise" is literally "turquoise bird" and "emerald" literally "green trogan" - birds even more brilliantly colored than the gems, and used as names of colors.

It is attention, for language, a fe literature ar confront the # and ancier than a modern logic of isola quently shines and deriving may derive fro obviousness o tinge of the are almost syn same musical similar meani

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It is this root structure to which I wish to call attention, for apart from the value of its study to the science of language, a feeling for it greatly enlivens the study of Aztec literature and cannot but be of help in numerous problems that confront the scholar interested in the ethnography and archaeology of and ancient history of Mexico. Aztec is far closer to its roots than a modern Aryan tongue, so that it might be said that in it the logic of isolating and monosyllabic speech underlies and not infrequently shines through the complex formations of an agglutinative and deriving language. It is a truism that very similar meanings may derive from very dissimilar roots, but in Aztec the comparative obviousness of the roots has the result of imparting some little tinge of the root-idea to all the derivatives, so that words which are almost synonyms nevertheless have different timbres, like the same musical phrase sounded on different instruments, when those similar meanings are developed from different roots.

Yet the root-ideas do not always tinge the meaning of words. The meanings of secondary stems derived or compounded from roots are still more influential in this way, and their special senses often quite cover up the root meaning, which becomes apparent only upon analysis. It may be possible that the peculiar and sometimes absurd meanings apparently embodied in many Aztec proper names, especially names of gods, may have been read into them by a process of popular etymology, that took them to be composed of certain common stems instead of the largely forgotten roots that had originally been put together to form the name. Such a tendency could have been greatly aided by pictographic rebuses such as the Aztecs employed for writing place names.

Take for instance the name of the magician-god Tescatlipoca. It is commonly supposed to mean "smoking mirror", from tescatl, mirror (returner, reflector, root iz), and popoca, to give off smoke, because the name is sometimes thus pictured, or the god is pictured as bearing some such device or insignia. But such a hieroglyph does not necessarily express the meaning of a word; it may be only a rebus intended to suggest its sound, and "Smoking Mirror" is not a very intelligible meaning for a personal name. Besides, by the principles of Aztec word-compounding if the name means some sort of mirror the element meaning mirror should come last; if an element meaning smoking comes last it means some sort of smoking. But poca does not ordinarily mean smoking at all (though poctli means smoke) - it must be reduplicated, popoca, to have that meaning. Again, the tli cannot belong with the tezoa, for the tl-suffix of a noun is ~~always~~ always dropped in the middle of a compound word. So suppose that we consider the roots of the word. There are probably three, iz, hither, coming, back, also behold! tli or tli, rising, also fire (from the primary root e), and po, expand, open, dissipate, lose, vanish. Te is the personal prefix. Final ca forms descriptive terms, and its variants c, ci (they all mean in a state of) become ca in the middle of a compound, so that we may compare zoa with izci, behold! Hence the term te-zoa-tli-po-ca could mean "he who ~~first~~ (lo!) uprises, vanishes" - not an

inappropriate name for a magician - or taking tle in the sense of fire, "he who (lo!) makes the flames expand, grow" - referring to an original nature as fire-god.

These ideas must in their present stage be accounted merely hints and suggestions. But more positive light on such points may be expected to flow from a continued study of the language and its radical, "oligosynthetic" structure. Among other things, a scrutiny of the root structure of Aztec names and a comparative study of their pictographic representations might show in what cases the hieroglyphs are certainly to be regarded as phonetic rebuses and in what cases simply as ideograms. Progress toward decipherment of the hieroglyphs must probably be made by a dual method, part phonetic and part ideographic, since probably both methods were used, as in Chinese, for constructing word signs. The problem is simplified if we have in any given case some fair indication of whether we are dealing with a phonogram or an ideogram, or if we are able to separate a hieroglyph into an "ideographic determinative" and a "phonetic complement".

Besides the poetical pieces in Brinton's collection, there ~~exists~~ exists abundant material for the student of Aztec linguistics in the original Aztec version of the Historia Universal de Nueva España, the great work of Father Bernardino de Sahagun, who could write and speak the Aztec tongue "with great accuracy and elegance".\* Many extracts from this text are given in the Abhandlungen zur Amerikanische Sprachforschung. Not the least interesting thing therein is the well elaborated vocabulary of technical terms applying to the arts.

I append first the Aztec text of our poem, in my own revised and regular spelling and again in the original Spanish spelling found in Brinton's book, second a list of the most common roots in the Aztec language, with a note on "oligosynthesis" and examples of some typical "oligosynthetic" root-compounds. Third, I append a brief bibliography.

\*Ftnote. Prescott, Conquest of Mexico, p. 58.

Or

ar

XO

Oni-walcalac  
Wel te-ellele  
Oncan quiquic  
Gauanti-mani  
(Yeuan Dios)

Oncan ni-cac  
Tlacazo amo  
Tlacazo ompa  
In tlazo-coy  
Zaquan-totot  
Oaya! oaya!

Ni-yol-poxau  
Acociza in n  
N-elziziwili  
In zaquan wi  
Oaya! oaya!

Auh nowiampa  
Auh tlacazo  
Tlacazo ye o  
I-yollo in T  
Ca intlawamo  
Azo wel oin-  
In ilwicac i  
Ixpan in Tlo

Cenin, ah, n  
Ye nican tla  
Nino-ztlacau  
In nican in  
Maquele teua  
In ilwicac i  
In M<sup>o</sup>-NAUAC,  
Oaya! oaya!

Ma xi-cac in  
Xochi-wewetl  
Ic nicim-ell  
Xochi-quepon  
Ic ~~malitix~~ n  
Oaya! oaya!

## A P P E N D I X A.

Original Text of the Poem Transcribed into Revised  
and Regular Spelling - System of B. L. Whorf.

XOPAN-QUICATL, OTON-QUICATL, TLAMELAUH CAYOTL.

Oni-waloalao ni quioani nepapan xochi-tlalpan,  
 Wel te-elleloixtican, te-tlamachtican, oncan anach tonameyo oiahti-mani;  
 Onoan quiquica in nepapan tlazo-totome, on quicoa-tlaza in ooyol-tototl  
 Gauanti-mani in in-tozoitzin, in o-elleloixtia in Tloce in Nauace -  
 (Yeuan Dios) Oaya! oaya!

Onoan ni-caoi in quicoa-nelwayotl, in ni quioani -  
 Tlacazo amo tlaltiopao in peuh yectli yanquicoatl,  
 Tlacazo ompa in ilwicatl itio wal caoizti in o-on-eua  
 In tlazo-ooyol-tototl, in oim-euilia in nepapan teo-occholme,  
 Zaquan-tototl; oncan tlacazo oi-yeoteneua in Tloce in Nauace -  
 Oaya! oaya!

Ni-yol-poxaua in ni-caoi, in ni quioani -  
 Aooizta in no-tlalnamioiliz, oo oin-papetlati-oiza in ilwioame;  
 N-elziziwiliz, eecayo-tiuh! in nicin-naloixtia in ompa on tlateneua  
 In zaquan witzitzil in ilwicatl itio.  
 Oaya! oaya!

Auh nowiampa nio-tlachialtia in no-yollo -  
 Auh tlacazo nelli in amo ixoich o-eua in tlazo-tototl;  
 Tlacazo ye oo tla-panauia, in ilwioatl itio  
 I-yollo in Tloce in Nauace mo-ochihti-ca;  
 Ca intlawamo teuyo-tiuh in no-tlalnamioiliz,  
 Azo wel oin-naloixti-ca; ittazo in tla-mauizolli  
 In ilwioac io papaci in ilwioac tlazo-totome  
 Ixpan in Tloce in Nauace, oaya! oaya!

Genin, ah, ni-ohocaz in tlaltiopao -  
 Ye nioan tlacazo onca nemoaya  
 Nino-ztlacauia; nio-itoa azo zan ye: ~~ixoich~~ ixoich  
 In nioan in tlaltiopao on tlami in to-yolia -  
 Maquele teuatl, in Tloce in Nauace, ma ompa inwan nimitzno-quicoatili  
 In ilwioac mo-ohaneocuan, oa no-yollo eua, ompa n-on-tlachia,  
 In MO-NAUAC, in MO-TLOC, ti-pal-nemoa!  
 Oaya! oaya!

Ma xi-caoi in no-quio, in ti no-oniuh -  
 Xochi-wewetl inio tzotzonaya, ilwioa-quicoatl in ni-zeuaya,  
 Io nicim-elleloixtia in teteuotin -  
 Xochi-queponi in no-yollo iaci xochitl nio-tzetzeloaya,  
 Io ~~mali-tiuh~~ mali-tiuh in no-quicoatzin ixpan in Tloce Nauace.  
 Oaya! oaya!

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Original Aztec Text of the Poem with Spelling as  
Given in Brinton's "Ancient Nahuatl Poetry".

XOPANCUICATL, OTONCUICATL, TLAMELAUHCAYOTL

Onihualoalao nicuicani nepapan xochitlapan, huel  
teellelquixtican tetlamachtican oncan ahuaach tonameyoquiauhtimani:  
oncan cuicauca in nepapan tlazototome on cuicatla in coyoltototl  
cuantimani inintozquitzin in quelelquixtia in tloque in nahuaque,  
yehuan Dios, chuaya, chuaya.

Oncan nicaqui in cuicanelhuayotlin ni cuicani tlacazo amo  
tlaltiopac in peuh yectli yancuicatl; tlacazo ompa in ilhuicatlitio  
hualcaquixti in coneua in tlazocoyoltototl in quimehuilia in nepapan  
teoqueholme zacuantototl, oncan tlacazo quiyectenehua in tloque  
in nahuaque, chuaya, chuaya.

Niyolpoxahua in nicaquia ni cuicani, acoquiza in  
notlalnamiquilizo quinpepetlatiquiza in ilhuicame, nelciohuiliz  
ehocayotl in iquinalquixtia in ompa ~~mitlatlaxtlan~~ ontlatenhua  
in ~~zauanhuiztitzil~~ zacuanhuiztitzil in ilhuicatlitio.

Auh nohuilampa nictlachiultia in noyollo, auh tlacazo nelli  
in amo ixquich qushua in tlazotototl, tlacazo ye oo tlapanahua in  
~~ilhuicatlitio~~ ilhuicatlitio iyollo in tloque in nahuaque mochiuhtica,  
ca intlacamo teuyotl in notlalnamiquiliz azo huelquinalquixtica  
ittazo in tlamahuizolli in ilhuicac ic papaci in ilhuicac tlazototome  
ixpan in tloque nahuaque, chuaya, chuaya. tlaltiopac

Quenin ah nichocaz in tlaltiopac; ye nican tlacazo onca  
nemohuaya ninotlacahua, nicitoc (sic) azo zan ye ixquich in nican in  
ontlamian toyolia; macuele chuatl in tloque in nahuaque ma ompa  
inhuan nimitznocuicatl in ilhuicac mochanecahuan, ca noyollo ehua  
ompa nontlachia in monahuac in motloc tipalnemohua, chuaya, chuaya.

Ma xicaquin nocuic in tinocniuh, xochihuehuetl inic  
tzotzonaya, ~~ix~~ ilhuicacuicatl in nicehuaya ic niqimellelquixtia in  
teteuotl, xochiouepni in noyollo izqui xochitl nictzetzeloahuaya,  
ic malitl in nocuicatzin ixpan in tloque in nahuaque, chuaya, chuaya.

A List of the

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## APPENDIX B.

A List of the Most Common Roots in the Aztec Language.Preface to Root-List - Oligosynthesis.

The following list does not include all the roots whose existence is apparent in the basic framework of the language, but I believe it includes the majority of common roots. It should be remembered that the meanings of roots and especially of these roots are very broad, not to be rendered by any single English word, and rather to be roughly outlined than defined like a word. It is generally well to render their meaning as much as possible by verbs, since in Aztec the verbs are generally the words closest to their roots and bearing the lightest derivational superstructure; moreover the ideas of roots are vivid like verbs, and yet not concrete, but broad and general, like verbs. Yet a root is not a verb; it belongs to no set grammatical category, it is only the sign of a general notion. This will at least be perfectly clear to any student of Chinese.

One thing to be noted about the Aztec root-ideas is their simplicity, and another is their unemotionality. Whatever these roots are they are not emotional cries. They do not show meanings like "I am angry". Emotions are suggested only secondarily, by a process of synaesthesia, even the meaning love being only a phase of the idea that is also used to denote soft plastic clay.

It would rather seem as though the roots stood for certain broad and simple ideas of extension, motion, and relation, such as might perhaps be conveyed by one or two gestures with arms and hands. The interesting thing about Aztec is the small number of roots and the great extent to which ideas and meanings, even the most subtle ones, are "built up" by combining the members of this small stock of such elementary ideas, somewhat as the myriads of chemical substances are built up out of a few chemical elements.

To denote this sort of structure in any language I propose the term "oligosynthesis", meaning "synthesis from a few", from *ὀλίγος* few. Aztec is an oligosynthetic language. Oligosynthesis is not necessarily opposed to polysynthesis. Some of the languages called polysynthetic may also be oligosynthetic, though when a language originally oligosynthetic develops to the stage of polysynthetic complexity seen in Algonkin and Eskimo it tends to cover up its original oligosynthetic structure. To what extent the oligosynthesis of Nahuatl speech is detectible in its remote relatives of the Uto-Aztecan or Shoshonean stock I am not aware - this is something to be determined by future research. In these tongues a similar structure may be observable, or again it may be hopelessly covered up.

Imani:  
tototl  
maque,

220 amo  
atlatic  
nepapan  
aque

Iliz  
tenehua

zo nelli  
lia in  
luhtica,  
rtica  
azototome  
tlalticpac

onca  
nican in  
npa  
to ehua  
huaya.

3  
lxtia in  
aya,  
ya, chuaya.

The opposite pole from <sup>oligo</sup>polysynthesis is not so-called polysynthesis but the condition observed in the Aryan languages. The Aryan tongues are synthetic, but not oligosynthetic. In them, as in Aztec, words are not roots but forms built up from roots. But unlike Aztec they are not built up by the varied elaboration and intercombination of the same few roots. They are based on a root-vocabulary containing many roots. To a much greater degree than of Aztec there holds good of Aryan the rule; one word, one root. It is not possible in Aryan tongues to have a large vocabulary of words commanding a wide range of meanings without making use of several hundred roots. In Aztec on the other hand the greater part of the whole vocabulary employs nothing but the thirty-two primary roots in the list below. It is possible to have a very large vocabulary, sufficient for all ordinary needs, without using any but these thirty-two roots, and I doubt if more than twenty would need to be added to this number to account for all the words in Molina's dictionary.

The affirmative and preformative elements are specialized or worn-down roots; they often become piled one upon another in the successive derivation of new words from older words, a process which in Aztec is carried to great lengths. The chief affirmatives of noun-stems (including adjectives and adverbs) are c, ce, ci, ca, # l, n, ni, yo, z, liz, and of verb-stems a, i, ti, wa, ya or ia, lia, with ~~px~~ piled-up forms like aua, eua, oa, wia, tia, itia, tilia. The chief preformatives both for nouns and verbs are of verbal origin, viz. ci or q, m or mo, na or n, te or t, tla or tl, and the prosthetic vowel ~~ix~~ i, probably picked up from the pronouns ni, ti, ci, that so often immediately precede a verb. The chief phonetic rules of composition and derivation are these: itl becomes ll, ly becomes ll likewise, final m becomes n, and initial l is not allowed but must take some prosthetic element.

To study the comparative grammar and etymology of a family of languages like the Aryan is to study the mechanics of speech, the physics of language. But to study the structure of an oligosynthetic speech like Aztec is to study the chemistry of language. Indeed, it is to study the chemistry of thought. Students of this new ground there will be, and to them I dedicate this root-list. They should seek to improve upon it, for while I have tried to make it accurate I do not claim that it is a perfect statement of radical meanings. I could perhaps suggest what may be its greatest value should I write above it the motto which Beethoven prefixed to the Pastoral Symphony - mehr Empfindung als Malerei.

chi-a-wa - do

e-tle bre

e-wa lif

it-ta com

lw-ma arc

lw-pi arc

ma-co-qui ex

ma(1)-chi gi

ma(2)-chi ha

ma(3)-chi mi

ma-lw ext

ma-ni ext

ma-z ext

me-lw str

me-lo-wa and/c

me-ya smoc

ni-ca sel

ni-ma sel

pa-a ove

- chi-a-wa - doing - room - release; allow room for doing;  
chi-c-a-wa, chicaua, be able;  
chicualiztli, power - see caua, a-wa, above.
- e-tle breath - burning; e-l-tle-l-tli, ellelli, pain.
- e-wa lifting - send out; eua, rise, lift.
- it-ta come - original, true; ittta, come upon, find, discover,  
perceive, see, visit.
- lw-ma around - extend; t-ilw-ma-tli, tilmatli, clothing, garment.
- lw-pi around - bind; i-lw-pi-a, ilpia, tie, bind, gird.
- ma-co-qui extend - contain - acquire, gain; macoqui, swell, rise, fill  
(said of rivers).
- ma(1)-chi giving - make; tla-ma-chi-a, tlamachia, 1, ~~stixstix~~  
distribute, apportion, arbitrate.
- ma(2)-chi hand, grasp - form; tla-ma-chi-a, tlamachia, 2, apply designs,  
embroider; ma-chi-yo-tl, machiotl,  
design, pattern, type, example, figure, symbol.
- ma(3)-chi mind - form; ma-ch-ti-a, machtia, learn, study, teach, preach,  
ma-chi-ti-a, machtia, advise.
- ma-lw extended - turn; ma-lw-i-n-a, malina, twine, twist, wreath.
- ma-ni extend - self; mani, spread, extend, ~~stixstix~~ stretch along.
- ma-z extended - union; ma-z-i-c, mazic, whole, entire, complete;  
mazicayotl, soundness, integrity.
- me-lw straight - turn; me-lw-a-c-ti-c, melactic, straight, right.
- me-lo-wa and/or me-lwa-wa; straight - turn - sand; melaua, ~~stixstix~~  
direct, straighten, flatten, prostrate self.
- me-ya smooth - go; meya, flow, gush; me-me-ya-l-yo-tl,  
memeyalotl, milk.
- ni-ca self - location; ni-ca-n, nican, here.
- ni-ma self - extend, continue on; ni-ma-n, niman, after this, next,  
thereupon, then.
- pa-a over - liquid (a liquid for putting over); paatl,  
anointing-fluid, ointment.

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- pa-lo pervaded - turn(lo inchoative); pa-lo-a, paloa, soak, moisten, sop, taste.
- pa-lo across - turn; pa-lo-ia, palouia, do a favor, help, aid, grant.
- pa-wa-zi bathing - sending - softness; pa-wa-zi, boil, stew, cook by boiling.
- pe-na first - response; pe-pe-na, pepena, choose, prefer, elect.
- pe-tla spring - set upon; petla(1), make an onset, onslaught.
- pe-tla burst through - setness, rigidity; petla(2), bore, dig, stab.
- pe-tla spring forth - set, distinct; pe-pe-tla-ca, pepetlaca, be vivid, brilliant, gleam, shine.
- pe-tla spring forth - settle down; pe-tla-n-ia, petlania, ~~xxxx~~ pour out, spill, strew.  
Cp. tlani, down - but verb tlania means resort to, ask.
- pe-tla-ca spring - set upon - container; pe-tla-ca-l-tli, petlacalli, bow; lit. "home of impetus" or "reservoir of spring", cp. petla(1) and calli, house.
- pe-tlan spring forth - display, shine out; pe-tlan-a, petlana, get bare, undress, strip, despoil, rob.
- pe-wa spring - send forth; pe-wa, originate, begin, be or come first, win, triumph, conquer.
- pi-ne-wa shrink - self - relinquish (let go); be shy, timid, bashful; pineua, turn pale (fright); pineua, be ashamed, blush; pinuani, ashamed, shameful, shy, timid, fearful.
- po-lo, po-lw disperse - turn (turn loose); poloa, ~~xxxx~~ lose, let go, let scatter; popoloa, dissipate, waste, devastate, destroy; ~~pk~~ poliwi (po-lu-i, or wi), perish, vanish; po-po-lw-ia, popolwia, let pass, forgive.
- qui-lo trace - turn; trace - around; i-qui-lo-a, iquilloa, draw, write, delineate; tla-qui-lo-a, tlaquilloa, apply designs, decorate.
- qui-pa following, again - all over (over again); quespa, turn around, turn, turn back, return.
- qui-po-ni following, resulting - expand - self; quesponi, come to full flower, bloom, blossom.

te-mi linte-pa linte-pa linte(3)-pe stotla-ma-chi stla-mi restla-za do~~xxxx~~  
to-ma(3) th:to-ma-wa prto-me-ya rato-mi soto-mi rato-neu drto-ya-wa soto-chi dr

ak,  
e.  
aid, grand.  
cook by  
elect.  
ght.  
dig, stab.  
ca.  
gleam, shine.  
XXXX  
t to, ask.  
petlacalli,  
"impetus"  
li, house.  
ana,  
ss, strip,  
come first,  
bashful;  
ght);  
shameful,  
se, let go,  
ppolca,  
vi  
draw,  
ate.  
rn around,  
n.  
ne to full  
om, blossom.

- te-mi line - pass, or limit - pass; temi, be full, filled;  
apocopated stem te-n-,  
whence e.g. tenci, full.
- te-pa line - over, straight over, right over; te-pa-n, tepan,  
prep. above, over.
- te-pa limit, division - running through; te-pa-n-tli, tepan-tli,  
wall, partition.
- te(3)-pe stone - upspringing; te-pe-tl, tepetl, mountain, crag, rock.
- tla-ma-chi settled - extent - make; tla-ma-ch, tlamach, adv.  
smoothly, placidly, in concord;  
tla-ma-ch-ti-a, ~~kk~~ tlamachtia, enjoy, take pleasure in;  
tlamachtia, te, usually, enrich some one (make it easy for).
- tla-mi rest - pass, or static-go (the use of "go" which is like  
a use of "stop", and vice  
versa); tlami, cease, end; apocopated stem tla-n-,  
tlan, in e.g. tlantia, end, come to an end.  
(This is an example of a class of compound common in  
isolating languages like Chinese, where by placing two  
roots together their meanings are narrowed down to that  
much that they have in common - e.g. where one says  
"look-see" instead of "see".)
- tla-za down - separate; tlaza, drop, let fall, fall.
- ~~tlaxx~~  
to-ma(3) throw out, scatter - mind, intention (getting ready to scatter)  
toma, loosen, untie.
- to-ma-wa project (bulge) - extend - send; tomaua, grow fat; tlatomaua,  
fatten.
- to-me-ya radiate - smoothly - go, or ray-gush (see me-ya above);  
to-n-a-me-y-yo-ti-a,  
tonameyotia, sparkle, flash, ~~xxxxxxx~~ "rayonner".
- to-mi scatter - let pass; tomi, become unloosed, untied - toma  
above probably affected by this word,  
or vice versa.
- to-mi radiating - darts; to-mi-tl, tomitl, fuzz, down, fur, hair,  
fluff, ~~kk~~ fleece, wool.
- to-neu drive - confusion (alikehood); toneua, trouble, annoy, afflict,  
toneualiatli, anxiety.
- to-ya-wa scatter - running - let go; toyaua, pour forth, op. ya-wa.
- to-chi driving - make; to-to-chi-li-a, totochilia, urge, incite.

- to-lo projection - turn (turn back what projects): to-lo-a,  
toloa, lower, bow (the head, etc.)
- wa-an go - beyond, through (op. an-a-l, anal, across, through);  
wa-an-a, redup. wa-w'-an-a,  
wauana, pierce, bore, dig.
- wa-lw departure - turned: wal, approaching, ~~wamx~~ coming, hither.  
(an example of lo reversive, op.  
to-lo supra, za-lo infra, and lo of the passive.)
- xo-chi sprout - form; xo-chi-tl, xochitl, bloom, flower, flowering.
- xo-tla sprout - set; xotla, to bloom, flower.
- ya-qui proceed - following, next after; ya-n-qui-o, yanquic,  
recent, fresh, new.
- ya-wa go - send abroad, out (a "look-see" compound);  
ya-w-i, yau, go on pilgrimage;  
i-ya-wa, iyaua, repel; oi-ya-wa-o, ciyauac, outside,  
outdoors.
- ya-wa-lw proceed - abroad - around; ya-wa-lw-ia, yaualwia, ~~gax~~  
go around, encircle;  
ya-wa-lw-ti-o, yaualtic, round.
- yo-a hiddenness - void, blank (a "look-see"); yoa, darken,  
become night;  
yoa-l-tli, tla-yoa-l-tli, yoalli, night, tlayoalli,  
darkness.
- yo-a-wa life - void - let go; i-yo-o-a-wa, iyocana, languish,  
pine (a compound of iyotl, soul, and  
oana, but iyotl = yo and oana = a-wa (q.v. supra))
- za-a-wa separate - avoid - depart; za-m-a-wa, redup. zazamana,  
flee, take flight, hasten, hide,  
op. maui, sub a-wa.
- zaca-ma separate, cleave - into - extending along, with wa, oa verbal  
termination;  
za-ca-ma-wa, zacamca, plough, plough through.
- za-lo separation - reversed; or, za turned from its common sense  
of singleness, iso-  
lation to its other less common sense of oneness,  
union; zaloa, connect, attach, hold, retain, detain.
- ze-co-mi together - contain - mobile; ze-co-mi-tl, zecomitl, jug,  
vase, op. co-mi supra.
- ze-ma-ni continuous - extend - self; zamani,  
continue, last, endure, persist,  
persevere, op. ma-ni supra.

ze-ma-ni to  
ze-co-mi to  
ze-me-lw ag  
ze-po un  
zi-a-wa we  
zi-a-wa ge  
zo-ne-wa fl  
zo-tla-wa w  
zo-ya fl

## Note:

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oligosynthet;  
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. jug.

. persist,

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ze-ma-ni

ze-co-mi together - contain - mobile; ze-co-mi-tl, zeccmitl, jug, vase, cp. co-mi supra.

ze-me-lw agreeable - smooth, even - turn; ze-me-lw-ti-a, zemeltia, refresh, delight.

ze-po unite, coagulate - expand; zepoa, freeze; zezepoa, swell up.

zi-a-wa weak - void - let go; ~~zizianilizatl~~;  
~~zizianilizatl~~;  
zi-a-w-i, ziaui, be weary, tired; zi-zi-a-wa, ziziana, to toil, labor; zizianilizatl, fatigue.

zi-a-wa gentle - water - send; zi-a-wa, ziaua, moisten, irrigate, cp. the third a-wa supra.

zo-ne-wa flow - likeness, confusion - send; zonena, be or put in confused commotion.

zo-tla-wa weak - settling - send; zotlana, fatigue, tire out.

zo-ya flowingly - moving; zo-ya-tl, zoyatl, palm tree.

Note: It should be noted that the principle of oligosynthesis explains the different meanings of ~~many~~ homonyms in an oligosynthetic language. The ability to do this is a test of oligosynthetic analysis. Thus, it explains why the two tlamachias, the two petlas, and the similar-sounding forms tlamach, tlamachtia; ~~pepetlaca~~ pepetlaca, petlania, petlana; ziaua and ziaui; mana and mani, have the very different meanings that they do have.

The principle of oligosynthesis also explains the fact that closely similar meanings are found associated with words very different in their whole sound but containing in that sound a common element such as ua or ui; thus it explains why we find words like auilia, ciauitl, mana, ziaua, all with a meaning of pouring liquid.

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