HALE NAUA
RECORDS OF SOCIETY ACTIVITIES
8. Addresses and speeches

M-469

1887, 1889

FIRST

ANNUAL ADDRESS DELIVED BY THE HONORABLE ANTONE ROSA G.C.C.H:-M.P. &c, &c, &c,- aAT THE MEETING OF THE HALE NAUA, NOVEMBER 26th, A.D. 1887. AT IOLANI PAIACE, HONOLULU HAWAIIAN OR SANDWICH ISLANDS.

I.

In entering upon this discourse it having been alloted to me to deliver the annual address in the English Language and to report upon the progress of the scientific branch of the Association, I feel it a duty. First :- To thank my co-workers on the Committee for the devotion, spirit and zeal with which they have entered upon their work. Second:- To thank those of the Association who have given us material aid in the prosecution of our work and in procuring Articles, for the benefit of local Archeological Studies which the Committee, would not have otherwise obtained without their help. Third:-To thank those who are not connected with theAssociation, for helping the Committee in their work in the space of time allowed us, and for furnishing Maps of deep sea soundings.

You must not think that our task has been an easy one. It has been uphill work to us and attended by many drawbacks, especially as members of the Committee are entirely composed of Volunteers and Amatures; nevertheless we have all worked with a will and we hope, our endeavors will not be unappreciated by you.

It must be pleasing and gratifying to you and those who are assembled here today to commemorate the first Anniversary of our Association in the revival of an old and honorable institution of our forefathers to observe how commencing from a small seed in its membership all classes and conditions of men, all profession and religions creeds from the highest to the lowest living in one communion of love and respect toward each other.

Commencing with a few as Ihave said, our society has now nearly Two hundred members enrolled, each of these entering without pursuasion or inducement, but, through a voluntary

desire to absorb the knowledge of our ancient mysteries and to enjoy the charities and benefits that our institution offers.

I have said that our ancient society had mysteries in the working of the order. There are really no mysteries. The ritual of our order consists of recitations, confirmations, and obligation given at the initiation, similar to any of the other organizations of the same character, and there is nothing derogatory to reason or common sence. Nothing impure or indecent; but, its principal aim is to elevate the mind to high philosphical truths so that we may follow their wise teaching and precepts, and learn more of nature and of this world.

The rap of the Olo at the Almoners Court, has not been heard throughout the whole year; neither have the sick required aid, nor have the needy and poor visited the precincts of the inner Court. Three daaths have occured and have been reported during this year. That of Mr. Kanepuu, His Royal Highness Prince Edward Aaron Keliiahonui and Mr Kahalehau. Deaths for each of which, we all sincerely mourned. In the death of the former and last mentioned, the society has lost two of its energetic members. Their knowledge of the ancient folklore and their contributions to the Archacological branch made them the most useful members of our society. Their seats are vacant; but, their deed of usefulness remain for us to commemorate. An example of life worthy for us to imitate and follow.

As to death of the late Prince, though young, he was exceedingly energetic and zealous and in his contributions in the Archacological branch of the society. His name can be found among the various articles and collections of our Museum. His example is worthy to be followed by us all and

especially 3.

especially by the young members of our Association.

Lost in the oblivion of the past, the founders of our institution are unknown to us and only known perhaps by those persons who are named in the Ritual and in our ceremonies. The Historian David Malo in his history only mentions the name of the order, but, without description of the institution. Mr. Piianaia and Mr. Unauna Senr and Mr Unauna Jr. were among those of the last of the Wiseman that died within the last 30years. Whatever and whoever they were, they have shown themselves to have been a class of men of ability and lived devoted to close observation of nature, skilled in Arts and worthy to be claimed as the ancient sages of Hawaii nei.

They believed in purity of life and kept themselves secluded from the profane. They never practiced Polygany, nor married in the prime of life, and only took to themselves wives at an advanced age to beget issue in order to perpetuate the wisdom and science they knew so that they should not perish. They wore garments of white Kihei or Tapa made to suspend from their left shoulder and sandals made of Pafyrus on their foot. The white and yellow malo on ceremonial functions around their loins, all of which were emblems of purity. They were scrupulous as to external cleanliness and bathed often in the sea and fresh water for purification. The sign of red clay (Alae)applied to their forehead is also a mark of purification, it being the colour of our first ancesters.

They offered no bloody sacrifies; but, commemorative recitations and sometimes prayers to Kane and Lono. These individuals though human were considered the embodiment of all that was just and good. These sages taught our ancient people the sciences of those days; the building of their houses, their canoes, the tilling of the soil and the man-

ufacture of utensils and materials conducive to the happiness health and life of the people.

The practical working of these sciences are applied to the moral lessons taught in the several degrees we have passed. These sages learned and taught astrology, which was the forrunner of Astronomy. In this manner they were enabled to undertake long expeditions and travel from place to place, reaching as one of these expeditions is known to have been performed, the extreme point of New Zealand, which was the destination. a distance of about 4,000 miles from Honolulu.

From our traditions we can glean the history of one of the expeditions. One of our ancient Kings He-ma, the 44" generation back from the present Dynasty, being of an Adventurous spirit and learned in the Art of Navigation and the science of Astronomy, of those days, started on an expedition to procure the red-arum Apeula or an article of food, (the red-taro): escudentem considered as more nutritious and healthy food for the people and now called the Piialii. He was told by a wise man on Waialua, Kauai, that he knew where the Apeula or red-arum grew could be obtained. That it grew in large quantities at Kapakapakaua, and could not be obtained, until he took a long journey by sea. The instruction of the wise man was carried out and having pursued their journey, the He-ma people reached their destination. But the tradition does not speak of He-ma's obtaining the desired object of the Expedition. He lived there for sometime and through collision with the aborigines his eyes were gouged out. Still he is supposed to have left progeny there to account for the New Zealanders or Maori race, according to their folklore claiming for themselves a direct descent from He-ma.(See Sir George's History of Maori Races).

He-ma's son Kahai, followed in search of his father, reached New Zealand and in enquiring of him, was told that he was blind and he may be found further south of Tahiti. Disappointed in his search for his father, Kahai returned; the tradition says he landed on Kau Hawaii, stayed at Paiahaa, from thence he went to Kalae and died at Kailikii. His bones as History gives it, are now deposited at Iao Wailuku, Maui, the ancient depository of the bones of the chiefs of Maui, on the Hanalaaiki line.*

Other adventures have followed at different periods, and it seems incredible how, without the knowledge of Navigation as existing now. They were able to sail their frail canoes by observation of the sun, moon and stars and return to their point of departure covering a distance of over 8,000 miles.

The ability of the men who planned and carried out these expeditions shows that they cannot be regarded as leaders of a barbarous Race. Neither were they men who fled from the persecutions of a conquering race, nor were they refugees of war; but, they were men who undertook expeditions, planned and fitted out for an express purpose; and for praisworthy objects. And where will you read in the history of nations that a King or a Ruler of a nation would leave his country in a frail canoe, such as they had in those days, about the size of a I or 2 ton Yawl, braving the perils of the ocean and the contact and encounters with the ferocious races of the south seas in order to obtain a more nutritious and healthy food the Apeula or the Piialii (Arum esculentum) for the good of his people? If there is one in the history of man and of nations, I am not aware of the fact.

Indeed, He-ma Sacrified himself for the sake of his peo-

* See genealogy Hawaiian Chiefs.

ple, for traditions state as I have mentioned before that he suffered persecution and his eyes were gouged out by the people of that foreign country. We have no positive evidence that He-ma's expedition brought the red taro or red-arum here; but, the fact of its being here and used as a select food by the Alüsor chiefs, proves, that the second expedition made by He-ma's son, Kahai may have been successful in bringing it here, for the red taro is named the Piialii on account of Kahai's visit to New Zealand. I quote a part of the traditional Meles that have been handed down " Pii Kahai, Koi Kahai i ka Apeula a Kane &c,&c-" All of which attest the fact of its having been imported here by one or two of these expeditions, probably the second.

The date of the adventure of He-ma and Kahai, I have reckoned to have occured A.D.567, about 1320 years ago. This is obtained by computing 44 generations from the era of He-ma to the present Reigning Sovereign. Giving each generation 30years duration will give an approximate in figures of the above date.

Pr In contradistintion to the Kahunas of the order of the Priesthood of the Temple, these people or sages were also called Kahunas in a certain sense. Men skilled in the Arts. As a man skilled in working a canoe is called " Kahuna Kalaiwaa-" A man skilled in the knowledge of knowing the boundaries of lands, is called " Kahuna kilo iwi aina-" One skilled in the knowledge of the stars, is called " Kahuna kilo Hoku and Kahuna kilo ao-" Meteorology- One skilled in medicine, a Kahuna Lapaau &c- The word " Kahuna " then really means in this sense, a Proffessor of the Arts and Sciences.

They offered as I have previously mentioned no bloody

sacrifices to the gods. Their offerings were simply composed of fishes, herbs and fruits and the fragnant leaves of thePala and Maile. The offering of the fish was emblematic that fishes were the first ancesters of men. After the fishes, herbs and fruits were offered, teaching that they furnished food and life to man. The fragrant leaves of the Pala and Maile were offered as incense and as an incentive in life to be good and just. They worshipped noIdols, but reverenced their forefathers.

The science of Genealogy was their constant study and it is ascertained that the doctrine of Evolution was known to these people thousands of years back.

The knowledge then of the ancient sciences of our forefathers is what is offered in the teaching of our order and from its lessons and precepts you must all be satisfied and assured that in them therecan be nothing repugnant to your religious or moral feelings.

As I have remarked in the first part of my discourse, that we have among our society, individuals differing widely in religious beliefs. Here we meet Catholics, Episcopalians, Presbyterians,Congregationalists and other denominations and nothing within the precincts of our chamber is don done or felt, but an animation to do good and promote the welfare of our order. Acquiring science then is its fundamental principle.

The knowledge of the ancient history of our people as viewed from the outside world, does not appear creditable and people are apt to accuse our ancestors as being a most depraved and degraded race, without any moral standing as they were viewed by the missionaries at their first arrival on these Islands. (See-(Cheever,Chapt II, p 46.)

One of their historians from abroad exclaimed " When the first band of Missionaries landed at Kailua only Fifteen miles from this Bay Kawaihae in the Spring of I820, just 3I YEARS ago upon the appearence of the natives."

" At first sight of these wretched creatures, was almost overwhelming. Their naked figures and wild expression of countenance, their black hair streaming in the wind as they hurried the canoe over the water with all the eager action and unintelligible exclamations and the whole exhibition of uncivilized character gave to them the appearence of being half-man and half-beast, and irresistibly pressed on our mind the query. Can they be men? Can they be women ? Do they not form a link in creation connecting man with the brutes ? "

" The officer heading the boat sent to the shore, on his return, exclaimed as he ascended the Deck, well if I never before saw brutes in the shape of men, I have seen them this morning."

If these were the conditions of our people in I820, a most favorable opportunity was lost to science. For in those days science had but faintly discerned the possibilities of the truth concerning man. Theology still usurped the interpretation. When the law of Evolution became known through the energy and the untiring zeal of the Anthropologists and Embriologists this supposed impenetrable veil was pierced, the truth laid bare inspite of theological assertions to the contrary.

When the observers of our people saw them in their rude and nude condition, frantic with delight in the exciting pleasures that the sport of surf-riding can only afford and give them and known to them by experience, it was perhaps

excusable to show them in the light, which their expressions shed but, these cruel critics have a motive, the disctrption of our people as half-men and half-beasts was applied in a spirit partial to their interests so that their work would have the justification of taming, civilizing and christianizing these wretched creatures- " the link in creation connecting man with the brute." It is a pity that though they have exhabited so much of their penetration they could not restrain their christian feelings to a better purpose than abuse of the natives. It is a gratification that now after a period of 68 years, the very people whom they desinated measured as half " Brutes," have reached such an advanced stage of civilization through the efforts of these tamers of wild beasts.

Evolution has proven without doubt that man is not exempted in his physical nature from an animal. He is classed to belong to or a Kin to a family of Apes, and were there no further development the coditions of the observer and the observed would have been alike physically and mentally. We will make the distinction for the benefit of the Historian and his authority. The isolated condition of Our Islands placed its inhabitates in position to depend upon physical strengh for sustaining life, which gave him no opportunities of higher intellectual developement. On the other hand the historian had reached a point which he considered far in advance of the state of the Islanders. Upon comparing these conditions it was natural for him to express and emphasize his-self congratulation; but it would have been far better if his utterances were carried more of a spirit of philanthropy, than that of intolerance and bigotry. Such being the spirit in which the character of our people was measured; we can dismiss the reverend historian and look upon his comments as coming from a source irreverently ignorant.

As we penertrate deeper and deeper into the recess of the past a mine of Archacological wealth unfolds to us that causes us to

wonder, how with their slimly aided observations of natural phenomena, our ancestors have arrived so near to the truth and to accord with the ideas of modern sciences.

The recitations of the duties of the officers making each station showed they had a Cosmogony of their own, and I will at some future time give a more complete explanations of their ideas than I can at the present moment. The work of your Committee has been done for the benefit of the members, by working out mechanically the illustration by Plans and Diagrams of a Cosmographic form of our Earth, principally though for your own comprehensions.

This figure

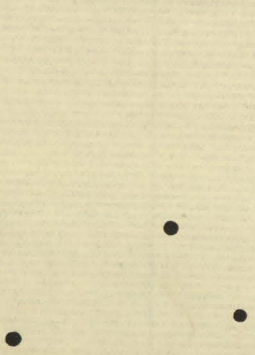

exhibit the world as we may suppose it to have existed in its Nebulous form. A luminous ball composed of a highly intensified Electric incandescent mass. Its parental source we have presumed to be a matter expelled from our over-loaded Sun. On this principal as in the illustration, you will observe our Moon was expelled from our Earth. The wavy gaseous clouds as you see, are caused by external violent cyclonic forcess gathering gasseous materials and expelling them in a revolving form from our Earth.

The cyclonic force forms a flaming wavy Corona reaching to such an extended space that through its own repelling power it detaches itself from the Earth as you see in the illustration a gaseous ball nearly in the same state as its parent, the Earth forming another Earth, but infinitely smaller.

Now here is our Earth and this our Moon, passing as I have

exhibitt the world as we may suppose it to have existed in its Nebulous form. A luminous ball composed of a highly intensified Electric incandescent mass. Its parental source we have presumed to be a matter expelled from our over-loaded Sun. On this principal as in the illustration, you will observe our Moon was expelled from our Earth. The wavy gaseous clouds as you see, are caused by external violent cyclonic forcess gathering gasseous materials and expelling them in a revolving form from our Earth.

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endeavored to illustrate from an embrio gaseous ball to its present condition.

We will now pass on from our Monn to our Earth, you have already seen a representation of it in its gaseous states. Here is an illustration of our Earth in its cooled state.

I have taken the diameter of Our Earth and cut it into two equal parts at the equator. Latitudinally as you would cut an orange in two parts and here you will perceive with wonder and astonishment that instead of a perfect uniform sphere, you have a figure as irregular and rugged as anything can be imagined. The form of the Earth as you see without the sea, to give it an aspect of decent clothing, can only be compare to an old withered potatoe. In this shape of deformity, it continues on to the 20 parallel North Latitude as you see on the Map, where it shows the same ruggedness up to the 40 parallel; but on reaching the 60 and 80 parallel, the ruggedness gradually disappears as you see on reaching the 83½ of Latitude we have almost a perfect round Ball. The clothing or covering of the sea on the last parallel mentioned, conceals the undulations below, though but slight and gives it the appearance of a perfect sphere.

The other half of the Earth from the Equator to the 20 40 60 and 80 parallel South Latitude. Indeed not further revert to it being as you can see the same as shown in the Northern Latitudes.

On this Map, you will perceive bearing from San Francisco S 65 W, at a distance of 758 miles. A submarine mountain which

we have called the Belknap submarine mountain, ^ We have named it Belknap in honor of the Discoverer. Sections of Sounding due North and South in Longitude I32 38' West. Latitude 3I 48' North, show 2480 fathoms or I4,880 feet, while in the same Longitude and Latitude 33 40' North, the sounding in depth proves to be only 388 fathoms or 2328 feet.

Here you have a mountain nearly equal to the height of Mauna Loa on the Island of Hawaii, at an elevation from the plateau of the sea raising to the height of I2,542 feet. Passing on the same

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Longitude I32 38' West to Latitude 33 40' North, the sounding sinks to 2,840 fathoms or down to the locality of the greatest depression, the depth of I4,888 feet.

The great depression is here caltulated to be 360 fathoms or 2,I60 feet extending further than the line of plateau. Ships sailing over the line of the great circle course from San Francisco to Honolulu, pass over the Western portion of Belknap's submarine mountains. If the people of San Francisco are aware of the locality of the mountain, they can know now the causes why they are shaken up at times by Earth Quakes. There is though no serious iruption of Belknap submarine mountain to expect. Ashock may be expected in 1888½1889; which will probably raise it a I00 feet higher. The year I900?, higher still until it will reach the surface. We will then have an opportunity of congratulating Uncle Sam for the acquisition of a New Territory near the western coast, which may turn out useful in guarding the Entrance of the Golden Gate.

Perhaps these soundings let us hope, that it will be useful in settling many conflicting ideas and theories respecting our glope as well as in proving the traditional events of Sunken Continents.

To Plato, Solon and to the Priest of Ancient Egypt, the Chroniclers of Chaldea and the Pentatench of Moses, are attributed the saurces of traditional history of the account of Noah's Deluge and the distruction of the Atlantis continent. These fabulous accounts may hereafter be turned into Authentic history.These remarks are merely tentative for a more thorough investigation of the theory which we have mentioned.

Enlightened Governments should take this great wokk in h hand and continue its soundings and furnish appliances for deep sea,reaearch to the perfect satisfaction of the theory advanced. In this age of advancement in all branches of scientific knowledge where mechanical appliances could further research in these matters, there would be no diffculty which could not be surmounted. International spirit should be called

in for the furtherance of science in this direction. There is no doubt that the sea and oceans where traditional history heretofore has and located fabulous lands may through such efforts yield valuable scientific historic results tenfold more instructive than hereto known.

Having given a brief description of the external physical structure of the Earth, let us speak of its interior. Geologists have disagreed as to its density. One of the theories is that called the thin-crust theory The advocated of this theory advance the idea, that a thin-crust covers the Earth and in the interior exists a mass of gaseous matter. The second theory is that the Earth is a solid body. The advocates of this theory established it upon Astronomic calculations. The third is- that there exist under the Earth-crust a semi-liquid stratum between the solid crust and a solid Nucleus-" To these theories we have added the semi-liquid a ~~purely~~ 2nd semi flu ~~m~~id matter before it reaches the gaseous matter in the interior of the Earth.

We will take the crust of the Earth to the depth of 40 miles as an intermediary point, adding 30 miles from the base of 40 miles to establish the heat ordinate at 3500 degrees as the fusing point at the depth of 70 miles. Under 75 miles we willsuppose commences the ~~semi~~-liquid atratum which we see at our volcano Kilauea reaching as we have calculated to the depth of 150 miles. This is obtained by multiplying 3 times 50 miles the fusing point. Still underneath this strata a pure liquid matter is asumed, reaching at the depth of 400 miles, leaving a compressed gaseous matter in the interior of 7,412 miles diameter of the Earth centre.

This theory we have assumed to account for the immense quanity of gas and steam as seen in crevicess and open fissures arising to the surface after a volcanic iruption and occuring in active volcanoes and their surroundings such as

those of our own Volcano Kilauea and Mokuaweoweo. The theory of liquid has been partially sustained by Prof. Dana, on his late visit to our Ilands, a theory advocated by him 40 YEARS A ago on his first visit inI842-3, which opinion he sees no reason of changing on his second visit to Kilauea this year, with this theory our own observations force us to agree.

Such being the case, the idea of percolation of surface water through a density of 50 miles and reaching the fusion point ~~must~~ should be given up. A further observation and investigation should be made before its final acceptance. The water or liquid matter, by pressure is forced from a greater depth than has been heretofore calculated, which we have explained above.

In order to reach a definite point of establishing hypotheses advanced we must go back to the paleontological history of the Earth, where we might expect to arrive at a plausible conclusion. I have here append in tabulated form a Palaontological table bearing upon its Evolutionary stages to the present period.

THE GEOGONICAL PERIOD.

Ist- The Parent-	The Sun or Our Sun.	Period.
Ist. The Germ,	.. Comet,	..
2nd. .. Egg,	.. Nebulae	..
3rd. .. Embryo,	.. Aqueositic	..
4th. .. Infant,	.. Molten,	..
5th. .. Maturity,	.. Crystalization,	..
6th .. Manhood	.. Concentration	..
7th .. Death.	.. " "	..

Moving upon ~~Progressing higher in~~ the ~~scale~~ plan of the Earth's devolution we come to the Geological stage of development which immediately followed the other. We will speak more of our notions regarding the use and application of the term devolution, to that of Evolution though perhaps some of you may take exceptions to this term.

THE GEOTHE GEOLOGICAL PERIOD.

Ist. The ~~GERM~~ Germ,	or The Ezoic,	Period.

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Moving upon Plan

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THE GEOTHE GEOLOGICAL. PERIOD.

Ist.	The ~~Germ~~; Germ,	or The Ezoic,	Period.

2nd. The Egg, or The Palaeozoic Period.

3rd. .. Embryo, ... Mesozoic ..

4th. .. Infant, ... Cenozoic, ..

5th. .. Maturity, ... Psychozoic, ..

Defining and applying the scale of Evolution to that of Devolution, in the line of Geology of the Organic Series, we come to the following stages of developement as is termed in the sence of Scientific phrazeology.

Ist. The Germ or the Geogonic or Archian Period the Molluscs or the Siluvean Period.

2nd. The Egg, the Fishes or the Devonian ..

3rd. The Embryo, the Reptilions or the Carboniferous Period

4th. The Infant, the Mammal or the Mesozoic Period.

5th. The Maturity, the 6th " Man the Tertiary and Quarternary or Present Period.

The scalee of Evolution, in Man has probably reached its limit in physical ~~does not stop at the Existance of man~~, but it is needless to multiply proofs bearing upon the subject we have on hand- Enough has been shown in a generi al sense to illustrated to you the Palaeontological history of our Earth.

Let us go back and view our Earth again in its Nebuleous condition. In million years, these Nebula cooled. Her light giving power gradually became less until entirely almost exhausted, like all life giving matters, she dies. Her previous brilliancy and grandeur, her incondescent light, if viewed from ether planets and her activity, her life, has departed millions upon millions of years ago. Hoary with age she still obeys the laws of gravitation, by her yearly cycle around the Sun; she still exists, nothing however remaining but her External fossilized remains to represent her original form. A fossil planet in our solar system like millions of her kin fixed to obey the unalterable law of nature as a resting place until finally to be obsorbed again into the womb of matter from which she first sprang.

At the period of the cooling process of the Earth, the surface heat evaporated, driving the gaseous matter to the centre and in the struggle of the Elements, the cooling process of external pressure prevailed. Narrowing and limiting her internal powers by degrees a process which has taken millions of years.

You will perceive then that this internal cooling process is still going on beneath us. In this capacity she still lives. There still remains within her a certain degree of vitality though of a less power than what she first possessed. We need not go so farfor an example. Here on our/Islands the greatest Volcano in the World must be taken as a faint illustration of/the Elements underneath us.

We will then suppose, that the density of the Earth's crust being understood which must include the Molten and the Aqueostic matter in the centre of the Earth.

The theory of the Aqueostic element of which we have advanced can be better discribed by Le Contes principles of Volcanic iruptions, and to supply a deficiency of the Molten element we have added as a material of lesser density, existing with the gaseous and Aqueostic element.

We must now account for the action of these elements in the interior of our glope, which action, is actually manifested. As we know the Earth turns on its axis from West to East once in 24 hours and at the rate of II02 miles, which we may take as the speed of the outter crust of the Earth.

This divergent motion in the interior though slow and possibly moving in the same ratio as has been explained as the Earth turns on its axist, even perhaps slower and unperceptable combined with the irregular forms showing deep depressions and high elevation in the Earth's interior, having nooks

and bays, points and capes allow the pressure and the force of the elements to operate in current and tides, similarly exhibited in the external part of the Earth. The wave of Molten currents coming in contact with abruptness of the interior of the Earth's crust, as those of sunken continents submarine mountains sunken Islands; all this cause to accelerate or retard as the case may be, the actions of internal forces.

These motions and forces are enough to produce a votex to create interial Cyclonic storms at the period most favorable to its operation. Striking a point where the vortex is the greatest, the power of Expulsion and pressure being greater than the density of the crust, press through the Aqueostic element, the Molten element and pieceres the 50 miles of hard crust. carrying in its wake - FIRST; the escape of the gaseous matter which is manifested by the explosion. SECOND, the liquid matters which is seen on the surface by the issue of the steam and LASTLY, the debri of the homogeneous or lava that covers the area affected by iruptions and its surroundings.

The arrows, represented in the illustration points to the directions taken up by the internal tides or currents.

Here you have an illustration. The interior coloured in violet represents the gaseous pent up matter. The yellow colour represents the Aqueestic matter. The red colour represents the Molten matter and the Ash or brown colour represents the solid hard homogeneous matter on the surface of the Earth. The blue colour which you see, represents the seas and oceans. In order to elligebilly defined to you to know the weight of the Earth we have measured the Earth, to be in tons, as 6,000,158,491,354,682,553,600 tons. I consider the obtaining and the execution of the Maps just exhibited to you as one of the most valuable additions to the Library of our Institution.

By the above calculation which is as correct as can be assertained in accordance to the physical construction of our Earth as has been shown you, confirms the principle of solving the weight of the World in a remarkable degree, of approximation by the method of a large lead ball attracting a small body to itself, or by means of a plumet which figures are given at an approximate of 6,000 000 000 000 000 000 000 000 TONS. Having now the Earth's weight in tons and its gravity 5.5, we are therefore enable to form an approximation in figures as to the Earth's age, which has been estimated to be, 4 594 093 337,182,003 years old.

GEOGONIC PERIOD IN AGES.

	Comet,	65,	
Ist. Period	Nebulae,	65,586,576,245,460	Years.
	Aquose,		
	Molten,		
2nd. ..		I96,756,728 736,380	..
	Crystalization,		

GEOLOGICAL PERIODS.

	Ezoic,	→ 442, 490. 677. 590. 023	
3rd. ..	Palaeozoic,	721. 452 338. 609. 560. I?022,I78,508,050,090.	..
	Mesozoic,		
	Enezoic,	→ 2.164. 357. 016. 100. 480.	
4th. ..		~~3,246,535,524,I50,270.~~	//
	Psychozoic,		
		594 093, 337, 282, 003 4,59I,060,337,I72,200.	..

The ancient Hawaiian chronelogical age of the Earth is computed to be 4,000,000,000,024,750 which is very near to the calculation computed under the usual mathematical methods, based upon the centennial system of Computation and given as follows:* but ~~very imperfect and unreliable.~~

(* See next Page.)

Their method of computations is calculated by the multi-

THE ORIGIN OF ANCIENT HAWAIIAN NUMERALS

UNDER THE CENTENNIAL SYSTEM.

One Kauna,	equivalent to the number of			4
Ten Kaunas	"	" One Kaau or		40
"" Kaaus	"	" One Lau "		400
" Lau	"	" " Mano or		4,000
" Mano	"	" " Kini "		40,000
" Kini	"	" " Pokini "		400,000
" Pokini	"	" " Lehu		4,000,000
" Lehu	"	" " Lehulehu		40,000,000
" Lehulehu	"	" " Ao		400,000,000
" Ao	"	" " Nalowaleloa		4,000,000,000
" Nalo	"	" " Haneepali		40,000,000,000
" Haneepali	"	" " Haneeloa		400,000,000,000
" Loa	"	" " Mauli-ka-po		4,000,000,000,000
" Mauli	"	" " Lipo		40,000,000,000,000
" Lipo	"	" " Pilimaikekumu		400,000,000,000,000
" Kumu	"	" " Kumulipo		4,000,000,000,000,000

Wela ka Honua- Pau i ke akua- or Offered to the Gods.

Reckoning by Digits to Forty.

Pana,	0 Zero.
Panakahi,	I
Paikekalua,	2
Puukolukolu,	3
Napuueha,	4
Palimakahana,	5
Waiakaea,	6
Kaeamauli,	7
Kokoiele,	8
Kaholookuaiwa,	9
Kalelenoahinalea,	I0
Panaakahiahinalea,	II
Panaikaluakahinalea,	I2
Puukoluakahinalea,	I3
Napuuikahakahinalea,	I4
Palimawaleahinalea,	I5
Akahiakaeaakilolo,	I6
Paluaakaeaakilolo,	I7
Puukoluakaeaakilolo,	I8
Puuhaakaeaakilolo,	I9
Puulimaakaeaakilolo,	20
Akahi-keewe,	2I
Palua-keewe,	22
Paukolu-keewe,	23
Puuha-keewe,	24
Puulima-keewe,	25
Waiakaea-keewe,	26
Kamauli-a-kaewe,	27
Koiele-a-kaewe,	28
Kuaiwa-kaewe,	29
Heahuna-no,	30
Panaikekahi-ke-nahu,	3I
Panaikalua-ke-nahu,	32
Panaikekolu-ke-nahu	33
Panaikaha-ke-nahu,	34
Laweikalima-ke-nahu,	35
Paaakaea-ke-nahu,	36
Omauliawa-ke-nahu,	37
Koieleha-ke-nahu,	38
Kuiwakele-ke-nahu,	39
He Kaulia no,	40. *(See next page.)

RECKONING BY DIGITS TO TWENTY

(SIMILAR TO IBERIAN BASQUE.)

Akahi,	1	Pe,	II
Ou,	2	Kau,	I2
Oi,	3	Hala,	I3
Ha,	4	Oia,	I4
Paele,	5	Umi,	I5
Pakini,	6	Kini,	I6
Ikaua,	7	Kini,	I7
Hookina,	8	Hookinakina,	I8
Lele,	9	Lelewalekaiwa,	I9
Pa,	10	Umauma,	20.

DOUBLE DIGITS.

Pekahi-pee. I2

Kau-Ou,	I4
Halahalakau-Ha,	I6
Oiaka-Ha,	I8
Umiumi-anei,	20.

Kaau Kahi Ka Manu	41
Kapio Kalua	42
Makolukolea	43
Hooipo Kaha	44
Paalima Kahiihii	45
Opani Haaiea	46
Imauli Kaheha	47
Koiele Kapio	48
Aiwa Kamanu	49
Piha Kaumauma	50.
Piha Kamau Koli	51.
E Koli Kalua	52
Pakaha Ke Kolu	53
Kuamua Kaha	54
Pakele Kalima	55

No. B.

GEOLOGICAL IN ACCORDANCE TO ANCIENT HAWAIIAN CENTENNIAL SYSTEM.

Male Agent.	Producing Agent.		
Kumulipo k†	Poele w ‡	Geogonic	60,000,000,000,000
Poeleele k	Pohaha w	Azoic	100 000,000,000,000
Pouliuli k	Powehiwehi w	Paleozoic	1,040,000,000,000,000
Popanopano k	Polalowehi w		
Pokanokano k	Polalouli w	Mesozoic	1,000,000,000,000,000
Kapohiolo k	Kapohaneeaku w		
Kapohaneeaku k	Kapohaneemai w	Cenozoic	1,800,000,000,000,000
Kapokinikini k	Kapomanomano w		
			4 000,000,000,000,000

Lai or Lailai- First woman.

Ku *	"	Man.	Twins	Physcozoic 24,750 = 4-
Kane	Second	"	The good.	
Kanaloa	Third	"	The Evil.	

825 generations at 30 years to a generation.

* Considered to be an Hermorphordite, but he nevertheless obtained Offsring with his sister Lai or Lailai as she has been termed. by some historians as Kihawahine.

she has been termed

~~† Means Male, or K~~

~~‡ Woman~~

* K means and stands ~~Male~~ for Male the ~~producing~~ force agent

‡ W " " " for Female the producing agent

OCEANS		SQ. MILES	TONS WEIGHT AVOIRDUpois.
Antartic	I 1/2 m/ deep	30 000 000	I8,926,798,080,000,0000
Arctic	I 3/4 m deep	8,400	5,692,427,375,000
Atlantic	3 1/2 m.deep	25,000,000	36,800,I62,950,000,000
Baltic sea	I 1/2 m.deep	I75,000	I,075,626,I97,880,000
Black sea	I 1/2 m.deep	I50,000	94,628,990,400,000
Caspean..	I 1/2 m.deep	I20,000	75,703,I92,320,000
Indian,	3 1/2 m.deep	I7,000,000	25,024,II0,806,000,000
Meditteran-ean sea,	2 m.deep	I,006,000	846,I93,46I,482,000
Pacific,	3 1/2 m.deep	50,000,000	73,600,325,900,000,000
		I23,459,400	I56,449,242,I05,465,600

A notable feature is presented in the depth of the three great Oceans, Atlantic, Indian and the Pacific, where the deepest soundings in each Ocean, measure the greatest depth equal to an average of 3½ miles or more. This corresponds in a corroberative evidence to historic traditions of the Submergence of Continents noticeable in the Atlanta, the Lemurian and Polynesian Continents. And the proofs of these submergencies we need not go very far. On the East side of the Island of Maui. Also at Kaimu Puna, Island of Hawaii which occured in the year 1868. Krakatoa in 1886.*

DENSITY OF THE EARTH.

The Earth's crust in 50 miles-	24,234,427,694,II0,000,000	tons.
The .. surface in mountain-	42,II2,577,088,000	"
Melten matter .. 225 miles-	22I,597,7I7,504,330,000,000	"
Aquostic .. 450 ..	I,373,897,4I5,954,660,000,000	"
Gaseous ..64I2 ..	4,380,270,628,846,900,000,000	"
Weight of the Earth,	6,000,000,042,II2,577,088,000	"
The Oceans added,	6,000,I56,449,242,I05,465,600	"
	6,000,I56,49I,354,682,553,600	"

*Cocoanut tree stumps could be seen at the depth of 15 to 20 fathoms of water on the Coast of Kona. Fishermen diving for their hooks at the depth of 40 fathoms one and half mile from the shore off Hiukauoho lae point in South Kona Hawaii, has brought up cocoanut tree roots from the bottom of the Sea; from the stumps of the tree standing in an erect position as if its natural state though the tops were broken off the tree and the roots stood being fossilized probably by the influence of the Sea, or salt water. The fishermen use to declare that land or terra firma must have been that one time.

plication of ten to a unit, to tens, hundreds, thousands, tens to millions and Billions
of a thousands, and so on; but nevertheless it shows you how close and
near these two calculations come.

To assist the studies in Archeology the Committee have been able to collect the following Ancient Curiosities.

I7 Stone Idols, (3 of these were contributed by the late Prince Ed/ Aaron Keliiahonui,).
I I
I Ivory Idol, His Majesty.

2 Wooden Idols, " "

6 Platas,

2 Awa bowls,

3 Wooden wash-basin,

4 .. Spittoons,

4 /. Calabashes,

I Slop bowl,

2 War Trumpets,

I26 Tapa pounders,

I .. Beard,

84 .. Sticks,

62 .. Printing-sticks,

2 Wooden Net-needles,

28 Pieces of different kinds of tapa,

4 Sticks for carrying poi,

3 Canes,

5 Olona boards,

9 War Necklaces,

4 Stone Awa bowls,

2 Stone calabashes,

I S .. Plate?

7 .. Lamps,

4 .. for pounding Noni or Awa,

3 Wooden Awa dishes,

I2 Poi pounders,

I0 Poi mashers,

2 Dog-teeth anklets, Kahalekaw

I Long string of dog teeth, Kanekuu

6 Calabash nets,

4 Fish sticks, Kanekuu

5 Small auxilliary drums,

6 Large ..

5 Gourd calabashes for keeping nets,

6 Awa stones,

2 Stones need for deep sea fishing,

I .. Model for helmet,

I Gruid stone,

2 Bowling ..

9 Sling stones (2 of these were contributed by the late Prince Ed. Aaron Keliiahonui).

3 Stones for cooking birds,

I2 Olonascrapers,

45 Stone adzes,

I Printed calabash,

3 Gourd water-jugs,

4 War spears,

4 Kauwila sticks used in a game in the olden times,

3 War clubs,

3 Limu stones,

3 Clothes gourd wicker worked baskets,

5 Baskets used for fishing hooks & lines,

6 Small canoes, models.

I Door stone,

2I Stone used for catching octabus (Squid,)

I0 Little gourds calabashes,

7 Kukui necklaces, 2 Bundles of Wauke,

I Feather girdle, IO Sandals,

I Pawehe mat, 2 Thatched houses,

I .. Table cloth, I Deg Plate,

2 War snare clubs.

RESTORATION OF LOST ARTS.

Under this heading, your Committee have been able to report the success in the manufacture of a Royal Feather Mantle or Cape as made by the ancient people of Hawaii. The cape is 2 I/2 feet long by I I/2 foot width, and ornamented by yellow feathers of the Mamo and the Oo, red feathers of the Iiwi and black of the Oo. The feathers are interwoven on The net work, ~~is~~ made of fine mashes of the olona fibre. A restoration as complete as can be desired and now presented for your inspection.

III.

RESTORATION OF TAPAS AND MATS.

We have here to present for your inspection the I. Aeokahaloa, 2. Paupau, 3. Ouholowai, 4. Pau Paiula, & Kilohana, (are all tapa, but different names) 5. Uauahi, 6. Mahuna, 7. Paikukui, 8. Puakai, 9. Mamaki, IO. Pukohukohu, II. Nanahu, I2. Kalukalu, I3. Haimanawa, I4. He Mao, I5. Puanui, I6. Paikukui, I7. Hunakai, Pele and Akala are tapas made on Kauai, the Committee have not been able to restore it.

The mats here presented are the Kumuole or Palau, thick and broad mats one strand is called the Launui which is a sample. Opihi is of two strands. The Opuu is of three strands and the Makalii is called the Ahu-Lauhala or the Ahu-Makaloa. The Pawehe is the Niihau mat. Pakea is Niihau without ornament or colour. The Ahaloa and Ahuao are made of the flower of the Pandamus. The Ue and the Kumu Nuanua a thi thick double, thrible and quardroble mats made of the Pandamus prin-

cipally for sleeping.

The Pillows or Ulunas as they are called are of different qualities according to the rank of the individual. The Pandamus are used principally by the common class, but the chiefs had their made of the Makaloa weed and the Papyrus. The gourd pillows are made for the children in order to flatten their heads, a custom used very extensively in Hawaii nei in the old time.

These tapas are principally of one kind of workmanship, but of different prints.

I.	Paiula,	Red coloured Tapa.
2.	Kalahale,	Red Edged Streak.
3.	Iwikoae,	Striped Streak.
4.	Okioki,	Divided Stripes.
5.	Ahapii,	Triple Stripes.
6.	Ohuohu,	Grey coloured Tapa.
7.	Kalala,	(Undefined.)

The Committee have now the opportunity of expressing their obligations to Miss Maria Lane, for the Restoration of the feather cloak, Captain Oxley of H.B.M's Ship Conquest, to Commander Nicolls of H.B. M's Commorant, to Captain Davis of the U.S.Ship of war Juniata who assisted in furnishing soundings. and to Mr. John Degraves, the draughts-man who has executed the diagrams exhibited.

In concluding this address, we cannot but feel looking back to the past years work of our Association with a gratification and pleasure, that our contribution to science though limited and small in its way, is something worth laboring for, and our leisure moments where others are wasting in idleness, we have occupied for a useful purpose for the benefit of mankind.

Nothing can bind us more firmly than the union of our pursuits

with science and the knowledge of Nature. Tending to elevate, enlarge and enlighten the mind and to enhance a liberal spirit towards a higher aspiration of knowledge and truths. Here we find a new field for our institution by uniting with our efforts our hopes, our faith, our love and our charity.

I ka Iku Hai, Na Iku, ame na Mamo o ka Hale Nana.

Ma ke komo ana aku iloko o na wehe=wehe manao, oiai, ua ili iho a ua kaumaia ma=luna o'u ia haawina, e hoopuka aku i ka olelo hoike makahiki, ma ka holo mua ana o ka Oihana Lala Akeakamai o keia Hale; He mea kupono iai [illegible] ke nana hoi i ili iho, e hoike aku [illegible] hoomaikai ana'ku,

O ka mua; i o'u mau hoa hana o ke Komite, no ka paulele, hoomana=wanui a me ka hooikaika ma ko lakou komo ana e lawelawe i ka lakou hana. O ka Lua. I ka poe o ka Hale i haawi i ko lakou manawa=lea ~~a me ke kokua~~ ma ke kokua ana a me ka haawi ana mai i ke kahi mau mea kahiko, oiai, ina aole keia, aole no e pono ana na hana a ke Komite ke ole ka lakou kokua. A o ke kolu; i ka poe aole no keia Hale i haawi i ko lakou kokua ma ka mea e pono ai ~~[illegible]~~ hana ana ina kii, ame na ana hohonu moana i pono ai ka hana o ke Komite.

Mai manao mai aukou, he mau hana olelo
na haawina i loaa ia makou. Mehe la
he pii ana i luna o Kekahi pali. a i hoki
ia e na alai he nui, oiai o ka hapanui
o na Komite, he poe hou ka na
Keia hana, aka, na hana makou me ka
hoikaika, a ke manao lana nei makou
e hoapono me ka hoia mai ia aukou mai i ka hana
makou hana.

He mea no hoi e hoohanoli ai
i ka manao o aukou a pau i akoakoa
mai i Keia la no ka hoomanao ana
ka malama ana i ka pumi ana o ka
makahiki o ko Makou Hui, ma ka
hoolu hou ia ana o na Oihana
hanohano Kahiko o ko Makou mau
Kupuna, ano la i hoomaka ae ai
mai ke Kahi anoano uuku, a nalu
i kumu laau mahuahua. Ala
iwaena o Kona mauhoa na ano
a pau o Keia Kulana, lahui pu na oihana no
hoi a one ke Kulana o Kela ame Keia
Hoomana, mai ke Kiekie a iki i
ka haahaa loa, e oho ana i loko o ka
Hui lokahi me ke aloha ana ke Kahi
i ke Kahi.

Ko Makou Hui Ua hoomaka pu mai ka uuku
e like me [illegible] i ano la

na Kokoke i Ka Aina Hanerí e paa nei ma Ka Papaínoa o Ka Hui; E komo pakahi ana Keia por me Ka hookikina ame Ka onoonoole ia, aka, mamuli o ko lakou makemake e omo aku i Ka ike, loko o na oihana malu Kahiko, a no Ka pomaikai o na oihana Aloha e paawai i Ka por i komo. ~~o ko na hanaina o Ka Hui.~~

Ua olelo ae nei au, he mau mea malu, a huna loa, Ke Kahi iloko o Ka lawelawe ana i na loina o ko Kakou oihana. Aka, aole no he mau mea huna loa. Oiai, o Ka lawelawe ana o ko Kakou oihana, he mau mea heluhelu, he mau hoopaa ana ame na Hoohiki ana, e like no mea Hui malu e ae. Aole he mea e hoopilikia a e hoohaiki aku mai ana i ko Kakou ikehala a me Ka manao aku a Kupono. Aole hoi na hana haumia, a mea ino wale, aka o kona Kahua, he mea noia e hapai ae ai i Ka noonoo, i na ike hohonu kiekie a oiaio hoi, i hiki ai ke hakai ia kona mau kumu maikai, a ame na ao ana ike, e loaa ai Ka Naauao loa ana aku a me Ka ike ana ina Ka ano mau

a i ~~ke~~ na mea hoi o Keia Honua.

Aole i loheia ke Kani a Ka Ola ~~o~~ ma Ka ~~Hoka~~ Ipuka o Ka Ikuhuu, a puni Ka Makahiki, aole hoi ~~mai~~ noi mai ka por i mai i Kokua no lakou. aole no hoi i Kipa ia mai i Ka, por mane a Ka por i nele ma na Paia Kuloko o Ko Kakou Ainaina. He ekolu, por make i hoike ia mai i ~~Kela~~ Keia Makahiki e hala iho nei. O Kanepuu, Ka Mea Kiekie Ke Kamalii Ed. A. Keliiahonui ame Kahalehau. He por Keia i hala ma Kela aoao o Kakoua i Minamina nui ia. Ma Ka make ana a Ka inoa mua a me Ka inoa hope, ua nele i Ka Hui he mau ~~Koo~~ Mamo ~~Kaapuu~~ Kaika ma Ka hana.. Ma Ko lana ike ina moolelo Kahiko ame na Mele Kahiko a me wehewehe ina mea Kahiko ua Kokua nui lana ma ia ano i Ka Hui. Ua hakaka Ko ~~Lakou~~ Lana mau Makalua, aka, He waiho nei ia Kakou Kahua o Ka lana mau hana maikai. i mea hoomanao na Kakou, a he mau ~~noho ana~~ ola ana Ko lana e Kupono ai ia Kakou.

Ma Ka make ana o Ke Keiki Alii me Ka opiopio, ua nui no Kona

hooikaika ana, a ke waiho nei ~~ma~~ ~~konaiwa~~ ke kahi mau hookupu nui no na mea pili i na mea kahiko e waiho nei o Ka Hui. A e ike ia no kona inoa maluna o ia mau mea kahiko. He mau kumu hoohalike kupono keia no na mamo o pio pio o keia Hui e hoopili aku ai.

O na hiohiona puipui o ko kakou waiho na, a me ka hoomanawanui o ka por e kono i ke loko o keia Oihana, a me ka oni ohau o ke kalana o kela ame keia lala o na Apana hanaiha= =waiia ia lakou, he mea noia e hoolana mai ana i ka holomua ame ka hoo= =mau ia ana aku o ko kakou Hui. O ke Aha hou aku la kor, a na mamo e ano i hou aku ai, i holomua mau ka ulu oheohe mau a me ke kulana ola nui kai mau o ko kakou Hui, ame ka manaolana no kona hoopono no keia mua aku.

Ua hiki i loko o ka lipolipo o na au i hala, ka por nana i kukulu i keia Oihana, a ua ike ole ia e kakou ka por nana i kukulu, aka, ua ike wale ia no e kakou ma na inoa o ka por e hoopaa ia nei ma ko na kula o

Ka Oihana i Ka wa e lawlaw ia ai.
Ua Kakau no o David Malo ma Kana
Buke Moolelo, i Kaimoo o Keia Hale, aka, aole
nae ana mau wehewehe e Jili
ana no Ke ano o Ka Hui.
~~Aka, Oia, aka, ina, ua akakaolelakou~~
ua hoike nae lakou ia lakou iho ~~iho~~ he
poe ohana naauao lakou, a e noho
me Ka hakilo mau ana ina loina o
na mea ano mau, a ua akamai
ma na Oihana ike o Kela ame Keia ano
a i Kupono Ke Kapaia lakou, o na
Kanaka Noiau a naauao o Hawaii nei.

Ua hoia lakou ma Ka Noho pono
me Ka naau maemae, a na hookaawale lakou
ia lakou iho ~~iho~~ mai Ka poe hoomaloka,
a Aiahua. Aole o lakou lawe ina
wahine he lehulehu, aole hoi he
hoao me na wahine i Ka wa opiopio,
aka, ua lawe lakou ina wahine iko
lakou wa i ~~oo~~ ai, i loaa ai Ke Keiki, e
hoomau ia Hua ai Ka noiau ~~naauao~~, Ka ike
a me na Oihana Naauao, a i nalowale
ole ai hoi.

He aahu lakou i Ke Kapa ~~ma~~
ma Ka poohiwi hema, Ke Kamaa
poahaaha ma Ka wawae, a o Ka
Malokea me Ka melemele ina wa Oihana.

ma ka puhaka, a o keia mau hoailona a
pau, no ka noho maemae ana noia, he
~~waa o~~ Auau mau lakou i ka wai, no
ka hoomaemae ana no ame ke kapala
Alaea ana, ma ke kau ana o ka Alae ma ko
lakou mau lae, ke kahi no hoi o na hoai=
=lona o ka hoomaemae ana, a i manao
~~[illegible]~~ ia o ka ano ia o ka waihoolua o ko kakou mau kupuna.

Aole o lakou alana ina mohai koko, aka, ma
ka heluhelu ana ina kanaenae hoomanao.
a i ke kahi wa he mau pule ia Kane ame
Lono. O keia mau kanaka, he kanaka
maoli no, aka, aia iloko o laua na
haawina a pau o ka noho pono me ka
Pololei. Ua ao lakou i ka poe kahiko o
kakou ina oihana akeakamai kahiko
oia mau la, ma ke kukulu ana o
lakou ina hale, na waa, ka mahiai
ana ame ka hana ana ina mea a pau
e haawi ana he pomaikai a he ola no
ka lahui kanaka.

Ua ~~waa~~ ~~ana~~ hoohuiia ia na Oihana akeakamai
a ka poe kahiko me na kumu ao noho
pono i ao ia ma na Papa i lawelawe
ia e kakou. Ua ao keia poe naauao
i ke kilo hoku me ka hookele ina waa ma ka ngnaama i na hoku. Ma
keia ano i hiki ai ia lakou ke holo ma
na wahi mamao, a o kahi i hiki pono ai

ai ma Ke Kahi Kihi welau oia holo ana
na Iiki lakou ma Nu Zealani, a
o Ke ana Kaawale o Keia wahi i holo
ia he Eha Tausani Mile mai Honolulu
aku nei.

Ma Ka Kakou moolelo Kahiko ma
na Mele i olelo ia no Keia huaKai Holo
moana, o Ke Kahi o Ko Kakou mau Alii
o Ke Kuamoo o Haloa, Ka hanauna 44
mai Keia, noho Moi a hiki ilaila, oiai, he
ake nui ia alii no Ka holo moana, a he
ike no hoi ma Ke ano hookele ame Ke Kilo
hoku, na holo aku oia e imi i Ka Apa-Ula
he ono maikai a ai Kupono no Ke ola
o Ka lahui Kanaka, a i Ke Keia wa na Kapa
ia na ai la, he Pii alii. Ua Kamailio ia
aku oia e Ke Kahi Kanaka Naauao no
Wailua
Kauai, na ike ia i Kahi i ulu nui ai
~~Ka~~ na ai nei he Apa-Ula. He ulu nui
na ai nei ma Ke Kahi Aina i Kapa ia o
Kapakapakaua, a aole e loaa aia a
holo oia ma Ka Moana. Ua hoolohe ia Ka
olelo Kuhikuhi a na Kanaka nauao
nei, a holo aku la ~~O~~Hema me na Kilo nei
a hiki, pono aku la na huaKai nei i Kahi i
manao ai. Aka aole nae i hoike ia mai
e Ka Moolelo
na loaa na Apa-ula nei. Ua noho loihi
oia malaila a mamuli o na hoomainoino

a na Kanaaina na poalo ia na Maka ~~o ke~~ aka, na loaa no malaila he mau pua nana, oiai, na olelo na Maoli o Nu Zelani he por mau ponoi lakou na Hema. (E nana i na olelo a Sir George Gray no Ka Moolelo Ka por Maoli o Nukilani)

Ua ini aku Kanakeiki o Kahai, a Ka Makua Kane a hiki i Nukilani, a i Kona Ninau ana no Kona makua Kane, na olelo ia mai oia, ua lilo na maka a na makapo, a e loaa ana paha ia ia na Ka hema aku i Kahiti. Hoi mai la o Kahai me Kanele o Ka loaa ana o Kona Makua Kane, na olelo ia e Ka moolelo na Jaena Kau Hawaii, noho na Paiahaa mai laila a Kalae a make i Kaileiki. A hoi hoi ia Kona mau ivi na Lao, Wailuku Maui, Ka pela o na Alii o Maui, na Ka aoao o Kanaluaiki.

Ua nui no na huakai holo mo = ana, a he mea Kupaianaha no hoi, me Ko lakou ike ole i Ka hookele e like me Ko Keia wa naauao, eia nae na hiki ia lakou Ke holo maluna o na Auwaa lilii o lakou, ma Ka ha Kilo ana i Ka La. Ka Makina ame na hoku, a hoi hou i Kahi a lakou i haalele ~~aku~~ ihoai i loko o na mile he ~~Kanawa~~ Kawalu Tausani a oi aku.

O Ke Akamai a me Ka Noiau o Ka lahui Kanaka nana i hoonohonoho i Keia mau kuakai holomoana, aole e hiki ke manao ia he por Alaka'i no Ke Kahi Lahui Naauao. Aole hoi he por i auhee mai Ke Kanaka a he lahui i hee mai na Lahui eae a holo aku i Kahi a pakele ai. Aka, he por Kanaka Keia i noonoo pono a hoonohonoho maoli ina ma e holo pono ai ua kuakai la, a no Ke Kahi manao a Kumu maikai loa. A ihea a iwaena hoi o Ke Kahi moolelo o Ka ~~kat~~ honua nei i ike ia ai Ke Kahi Moi a Alii Aupuni Paha i haalele i Kona Aupuni maluna o na waa liilii e like me Ke ano o na waa oia mau la, me Ka hopohopo ole ina ino o Ka Moana, aole hoi i Ka make ai na lahui kihiu o Ka Hema aku nei, i mea e loaa ai Ke Kahi ai ono, a ai e Ola ai Ka lahui, oia hoi Ka Ape-Ula, a oia no hoi Ka ai Kupii alii e olelo ia nei i mea e pono ai a e pomai = = Kai ai Ka Lahui Kanaka. Ina he Moolelo Ke Kahi oia ano iwaena o na Aupuni, Aole au i ike a i hoomaopopo hoi, he moo- Ke Kahi oia ano ma Ka honua nei.

He mea oiaio, ua mauna o Hema i Kona Ola iho no Ke ola o Ka Lahui Kanaka no Ka mea, ua olelo ia ma Ka Moolelo, ua hoomaka mua oia oia i ua poalo ia na Kaa

e Ka lahui o na Aina e. Aole no he mau hooiaio maoli ana, aka lawe ia mai e Hema Keia Apo-Ula ia oei, aka, o kona ulu ana ia nei i Keia wa, a he ai pumi na na Alii, i manao ia no, na Kahuatai alua paha, oiai, na kapa ia Ka inoa o ia Kalo he Piialii no Ko Kahai hiki ana i' Nuuanu. Ua olelo ia ma ke Mele i Ko Kahai hoolaa ana, "Pii Kahai, Koi Kahai i' Ka Apo-Ula a Kane &c &c" a he hooia ana no Keia na ke Kahi o Keia mau kuatai i lawe mai ia oei. Mehe mea la e Ka lua iho o Ka kuatai,

Ua hoonohonoho ia Ka kuatai la a Hema lana o Kahai, i Ka Makahiki o Ka Haku 567, he 1320 makahiki i hala aku nei. Ua hoonohonoho ia Keia ma Ka hoonui ia ana'Ku o na makahiki he Kanakolu (30) me Ke 44 na hanau= =na mai ia Hema mai, alaila, e hiki no aua nei na kuahelu i Ka makahiki i olelo ia ae nei.

Ma Ke Kahi Kulana o Koa ae, ua Kapaia no Keia por he Por Kahuna. aka, ua o Koa ma Keano he Kahuna no Ka Moo. Ka por lawelawe ana na Oihana o Na Heiau, aka, ua Kapaia no nae laua he ~~kuau~~ por Kahuna no

no ko lakou ike ma na oihana akeakamai;
E like la me keia. He Kahuna Kalai=
=waa. He Kahuna. He Kahuna Kuhikuhi
puuone. (Kilo iwi aina) He Kahuna Kilo
Hoku. He Kahuna Lonoopuakau (Kilo ao)
a pela me na Kahuna Lapaau.

Ua olelo mua ae nei au aohe o lakou
lawelawe ina Alana a me na Mohai koko
hoi i na Akua Kii. O ka lakou mau mohai
he ia, na hua ai a i na lau aala o ka
Pala ame ka maile. I alana ia na ia
oiai, ua manao ia ~~mai~~ mai laila mai
ko kakou mau kupuna. O na hua
ai hoi, he mea ola no ke kanaka, o ka
lau aala o ka pala ame ka maile, ua alana
ia ia o hooulu mau ia na hana ~~pono~~ maikai
me ka noho pono. Aole o lakou hoo=
mana ina Kii, aka, he hoomanao
ina Kupuna ma ke ano he Aumakua.

O ka oihana akeakamai o ke Kuauhau he oihana ao nui loa ia na
lakou, a he ~~kahuna~~ Kumu ao i ike ia e ka ia lahui
he mau tausani makahiki i hala ae
nei.

Aia hoi, o ka ike akeakamai kahiko
o ko kakou mau kupuna, na mea
e lawelawe ia ana e ka kakou oihana
a ma o kona mau kumu ao maikai, he

hiki ke hooia ia, iloko o keia Oihana, aole ia he mea e kue ana i ko oukou manao i ka Hoomana ame na manao hoopono.

Oiai, ua olelo mua ae nei au na lehulehu iwaena o kakou, he poe i kaawale loa ko lakou mau manao i ka Hoomana. Eia iwaena o kakou kekahi poe o kakou he poe Katolika, Bihopa, Peresebeteriana Kalawina, ~~Bihopa~~ a me na Hoomana e ae, a aole hoi iloko o na paia kuka o ko kakou anaina ke kahi mea i hana ia, koe wale no, ka hooulu ana i na hana maikai no ke ola ame ka pono o ko kakou Hale Nuna.

O ke kahua nui no nae o ko kakou oihana oia no ka Oihana Akeakamai. O ka nana ina mai o ko kakou mau Kupuna, ~~aole noi iku~~ e ko waho poe oia hoi, ka poe o ko na Aina e, aole no i maikai loa, a ua hoopili ia'ku maluna o ko kakou mau Kupuna he lahui i haule hia loa iloko o ka pouli, a aohe hoi he kulana hoopono a noho ana pono hoi.

Pela i hoike ai kekahi mea kakau Moolelo o na Aina e, I olelo ai oia penei. I ka wa i hiki mai ai na Missionari, ma ~~Kawaihae~~ Kailua he umi kumamalima mile ~~mai~~ Kawaihae i ka makahiki 1820, he 35 makahiki

i hala ae nei, ma ke ano o na helehelena
o na kanaka ia wa."

"Ma ka ike ana ~~akua~~ i keia poe
lapuwale, ua hoopailua ia ka manao.
Ko lakou mau kino olokeloke, me ka
niokiona hihiaio na helehelena, me
ka pulelo o ko lakou mau lauoho ~~Ekeale~~
i ka makani, i ko lakou wa e hoo=
paepae wa ai, me ka oni ana o na
kino ame ka uwa nui ana o na leo,
ma na olelo i maopopo ole, a me ke
~~ka pouliuli~~ ano naauao ole, ma ka nana ~~ina~~ mehe ~~a~~ mea la, he
hapa i ke kanaka, a hapa i ka holoholona,
a kau maila iloko o ko makou mau
manao i hiki ole ke pale ae, ka ninau?
He kanaka anei lakou? He wahine anei
lakou? Aole anei keia o ka lahui e
akaka ai ke ~~kaawale ana~~ palena mawaena o ~~ke kanaka~~ i kaawale
ai ke kanaka a kaawale na holoholona.

O ka Malama Moku, ka mea nana
i lawe i ka waapa iuka o ka aina,
a i kona hoi ana mai iluna o ka moku
ua olelo aela oia, aole paha au i ike
mamua ina holoholona i ku ai ko lakou
ano mehe kanaka la, a akahi no
wau a ike i keia kakahiaka."

Ina o ~~ka helehelena~~ ke Kulana ame ke ano
iho ia o ko kakou lahui kanaka i ka Makahiki

1820; na hala aku ke Kahi wa Kupono loa, e hoolawa ia ai he ike no ka Oihana Akeakamai. Iloko oia mau la, aole no i maopopo loa ka oiaio, o ke Ke Kanaka ano kuleana e kona waihi oiaio, iloko o ka pae holoholona, e pili ana i ke ano Kanaka. Ua uhiia e Ka pale manoano a ka oiaio a i maopopo ole kona kumu a me kona waihi oiaio malalo o na Kanawai ano mau o ka honua nei. E pau ana no malalo o ka Mana Hoomana, ke woke= =oche ana i kona ano. Aka, i ka wa i ike ia ai ke Kanawai o ke Kuauhau mamuli o ka hoohalua ana, a ka por Akeakamai ma na Oihana ike o huli ana i ke kumu o na mea hanau a pau a me ka por ike i ka wochewche ina mea kino ola, oia hoi, ua nahae iho la na pakuhi a ahu wale ae la ka oiaio, me ke hole ole no nae o ka hoomana noia mea.

I ka wa a ka por no na aina ae i ike mai ai i ko kakou lahui kanaka e noho ana me ke kahaloha kapaole, a me ke ano oiaio o na helehelena i ka hanoli, i ko kakou wa e pakaka waa ai a helenalena paha, a oiai o keia lahui kanaka walea no

Ka Jor ike i Ka lealea ma ia mea, ua
hiki loa Ke Kala ia Kakou ma ia ano.
aka, o Ke Kumu i loaa ai Ka hoomaopopo
ia ana me Ka wehewehe ole i Keano,
ma Ka aoao o Ka Jor Kakou Moolelo a i
nana ai ike mai i Ko Kakou ano ia wa,
a i hoopili ia aku Ke ano o Keia lahui
he hapa i Ke Kanaka a he hapa i Ka
Poloholona, i mea e pono ai Ka Kakou
mau hana a i mea e hooia ia ai
Ke Kupono o Ka Kakou hoolakalaka
i Keia Jor "lahui ano hoopoloholona", a he
palena hoi e Kaawale ai Ke Kanaka
me Ko na poloholona." Aka, A aoleno
hoi i Kaapoaly loa Ka hoiaio ana i
Aka, he mea minamina i na olelo
a Ka Jor o na Aina, e laa na olelo a
Ka Jor i ike mua i Keia lahui, ame
Ka na olelo a Ka mea Kakou moolelo.
Aka, he mea minamina nae oiai, ua
hiki Kakou ma Ko Kakou hoike a maka ana
ae i Ko Kakou naauao, aole, Ka he hiki ia Kakou
Ke hoike ae i Ko Kakou manao aloha
Kristiano, ma no Kakahi mea Kupono
e ae, a e waiho hoi i Ka noino. Aka
he mea no hoi e hoohanoli ia ai Kakou
oiai, iloko o na 35 makahiki hou mai nei
he 35, o Ka lahui a Kakou i naili ili
ai malalo. o na "ano poloholona," oiai

ua hiki ae la lakou ke kulana naauao na ~~e~~ hiki ai i keia wa, ke kuhikuhi ana aku ia lakou, i ko lakou naaupo ~~i keia wa~~ ma keia ano.

Ua hooiaio ka Oihana Kuauhau o na mea ola kino a pau, me ke kanalua=ole, aole i kaawale ke kanaka ma kona ano kino, mai ko na holoholona. Ua hoonoho ia ~~ke~~ kanaka ma ka lalani o ka Ohana o na ~~Keko~~ Katarahine. A ina aohe ke kaiaulu hou ae pii hou e ae ai ~~...~~ ke ano o ke kanaka, alaila, ua like a like ~~ke~~ na kulana o lakou me kakou ~~o ka poe i ike ai nana mai i ko~~ ~~kakou ano~~ ~~ka kulana o ka wa mamua, ~~ ko ~~kakou~~ ano ~~ia wa~~, ~~me ka~~ poe ~~a lakou i ike ai~~.

A no la, na kakou no e waiho ~~a e hoike~~ a e hoike aku i ~~...~~ ka mea kakau Moolelo; ame kana kumu hakuolelo.

O ke kaawale a mamao o ko kakou paeaina mai na aina pili ole i ke kai, i hiki ole ai i ~~kona~~ keia lahui kanaka ~~ke~~ hoohala aku ma na kulana noonoo kiekie, a ~~e~~ ua mau no ka hilinai ana ma ka ikaika o na kino ka pono o ka noho ana.

Ma ka awaawa hoi o ko na aina e e nana mai ana ia kakou, ua hiki lakou i ke kulana noonoo kiekie mamua o ko kakou kulana, o keia lahui ia wa, a ~~e~~

ma Ka hookalike ana o Keia mau Kulana
a elua, ua lawa i Ke Kahi ~~Kulana~~ hoo=
puka ina olelo pai nona iho, aka, mai
oi loa aku ka maikai ina ua hoopuka
ia Keia mau olelo ma ke ano aloha, aole
hoi ma ke ano hoowahawaha a make
ano makee. Oiai, ina pela iho la ke
ano o ke ana ia ana o ke Kulana o ko
Kakou Lahui Kanaka, ua hiki ia
Kakou ke hookuu, ina olelo nema aka
mea Kakau Moolelo, ~~hoopuka ia mai~~
oiai, ua ala ae, a ua puka mai
o ka ike ole, loa ame Ka Naauao.

Aia hoi, malalo o na papa ku o
ka homua e nor ana na ala, aa papa
homua i kau ia Ke Kahi malama o Ke Kahi
a i huna ia mai Kaike ana aku a ka
maka. Aka, ina Kakou e eli loa aku
a komo aku iloko o Ka holomu, a ia hoi e
loaa ana nei ia Kakou, he malua wainui
he wahe ia ke poi, Kahi i waiho ia i
e loaa i ia Kakou, Ka puana ana ae, i
ae ke olelo iho i Ke Kupaianaha. Oiai me
ko Kakou ike ano opiopio aka na
polalei, ~~Ka~~ ma Ke Kilo ana a me Ka
mana ana ina ouli o Ka homua, i Kokoke
aku ai Kakou i Kahi o Ka Oiaio, a i ano ku
like me na Oihana Akeakamai o Keia au

onalanalawa.

Ma Ka helu helu ana ina au o Ka manawa, o Kela ame Keia pou, aia hoi he Kumu lipo honua, kakiko no Ka lakou. A o Ka hana a Ko outou Komite; ~~e~~ e ike ai na hoa o Keia Hale, o Ka wehewehe aku, ame Ka hoomaakaka ana ma na Kii i Haha ia i Ke ano o Ko Kakou Honua.

O Keia Kii ~~ma~~ hoike ana i Keano o Ko Kakou Honua i loa ano ole he ano as wale no. Ua like me he popo ahi la a i oi Ka wela he ano ahi uwila malamalama punohunohu. Ua manao ia o kona kumu mai, he ahi i pale ia mai, mai Ko Kakou La mai. A ma Keia ano like no hoi e ike ai outou ~~ua~~ i pale ia mai aku ai Ko Kakou mahina mai Ko Kakou honua aku. O Ke ano o Ke Ao Mahu, kikoola ame na mea oioi a outou e ike la nei, no loko aeao ia o ina makani puahiohio, e hoa- ~~=~~ koakoa ana i na Mahu a mea pale ia aku ma Ke ano, poai wili ~~ite~~ por por mai Ko Kakou honua aku.

O Keia, mahu puahiohia ikaika ma kona ulaula ua hala loa iwaho, a ma o kona. ~~ikaika~~ mana, ikaika pale iho, ua kaawale aku oia mai Ko Kakou honua aku, e like me outou e ike mai la ma Keia Kii. He Popoahi

Mahu i kulike loa me kona makua, ka Homua nei, ake homua okoa no hoi, aka oa lui loa mai Kona mahuahua malalo o Ko Kakou homua. A eia Ko Kakou Homua a o Keia hoi Ko Kakou Mahina. E hoomaopopo ia ana Kona ano mai Kona hanau ana he Popo Mahu a ikeia no i Keia wa.

E hookele aku Kakou mai Ko Kakou Mahina, a i Ko Kakou homua, a e hoomaopopo iho no hoi oukou i ka hoike ia ana aku oiai, Kona wa he popo ahi Mahu wale no. O Keia Hii hoi, o ke ano Keia o Ko Kakou Homua i Kona wa i maalili ai. Ua lawe ia mai ka Homua ma ke ana Poai waena a ua mahele like ia iloko o na Apana ma Kauhonua Lateta a elua. E hoohalike ae au e like me ka mahele ana o Ka hua Alani mawaena Honu Ponoi, a e ike no oua=
=nei oukou me ke Kahaha, ~~i~~ ma Kahi i manao ia i he porpor like loa Ka Homua nei, aia hoi, he awaawaa launa ole. a ina aole i uhi ia e ke Kai ame na Moana i mea e like ia ai he aahu Kupono Kona, na hiki ia Kakou ke hoohalike ae me he uwala olapalapa la. Ua hoomau ia aku no Keia ano awaawaa a hiki i Ka Lateta 20° a pela no a hiki i Ka Lateta 40°; aka i Ka hoea ana i Ka Lateta 60 ~~th~~ ame 80° ua

hoomaka ka emi mai o ke awaawaa a hiki i ka Latetu 82° alaila, ua ano porpor like loa, Na ke kai i huna i ke awaawa malalo a ano ma ka nana ina maka ili ka ua porpor loa.

O ke kahi hapa o ka honua malalo o ka Poai waena, mai ka Latetu 20° 40° 60° ame ke 8°, aoao Hema, he makehewa paha ka hoo akaka ana, oiai, ua ike maka ae la no oukou i ko ~~ka~~ na Latetu Akau.

Oia hoi, ua hoike a maka ia la, ia oukou ke ~~kii~~ kii o ka Honua i mahele ia mawaena i kaha ia ma ke ana like he 1000 anana iloko o ka 1/2 iniha. A oiai ma o ka oukou nana ina ma heleheiena ame kona ano ~~ma~~ waho, e pau auanei ke kuhihewa ~~no~~ i ka manao mau ana a alania wale no ka ili o ka Honua. He makehewa wale no ke pakui wale aku no ina kuaolelo, oia ke ike a maka mai nei oukou ma keia mau kii e waiho ia aku nei imua o oukou a na keia mau kii no e hoike nona iho.

Ma keia kii, e ike auanei oukou ke holo mai Keleponi mai, a e moe ana ka ihu ~~ma ka Latetu Latetu~~ Hema 65°. Komohana ~~Hema~~, he 758 mile mai laila mai, he mauna nui iloko o ke kai. A ua kapaia o ka Mauna Belenapa, ma ka inoa o ka mea nana i ana i ka hohonu o ka Moana. O ka ~~Mahele~~ apana hohonu o ke ana ana, mai ka Akau a ka Hema, ma

Ka Lonetu 132° 38' Komohana, a Latetu 31°48 Akau he 2480 anana ilikeane 14.880 Kapuai Ke Kiekie mai Ka ili honua ae, a mai ~~Latetu~~ Lonetu no, a Latetu 33°40' Akau, o Ka hohonu malaila he 388 anana i like ane 2325 Kapuai malalo iho o Ka ili o Ke Kai.

Aia hoi ike ae la ou kou i Ke Kahi Mauna malalo o Ka Moana i like Kona Kiekie ae Ko Mauna Loa ma (Ka Mokupuni o) Hawaii, a o Kona Kiekie mai Ka ili ae o Ka honua he 12.342 Kapuai Ke hoohele aku Kakou mai a Lonetu 132°38' Komohana a hiki i Latetu 33°40' Akau, ua puhalu hou aku Ka honua (malalo o Ke Kai) ma Ka ili honua he 2.840 anana a hiki i Ka papaku paa ilike Ka hohonu ane 14.888 Kapuai.

O Ka puhalu ma Keia wahi ua like ane 360 anana, a i like ai hoi ae 2160 Kapuai Ka hohonua hou aku ma Ka ili papaku like o Ka Honua. O na moku e holo mai nei (mai Kapatiko mai) ua ae lakou maluna pono i Ka aoao Komohana o ua Mauna (Kuono) Belenapa la. Oiai, ua ike pono ia ae la Kahi i Ku ai ua mauna nei, a i Kahi wa paha mamua aku nei, a manei hope aku paha, e ike ananeiia por o Kapatiko ike Kumu o Ko lakou honanene ia e na olai. Aole no he Kumu e puiwa ae ai lakou no na puka hou ae o Ka Pele ma ua Mauna Moana Belenapa la. Aka, e hoea mai ana no paha he olai i Ka (mahiki) 1890, e hapai hou ae ai i ua mauna la he 100 Kapuai hou ae iluna, a pela

i Ka makahiki 1900, e hapai hou ia ana no a pela a hiki i luna o Ka lihikai. Alaila, he wa kupono wale, e hoomaikai aku ai no ka pomaikai, i ko America Poke no ka loaa ana o ke kahi panalaauhou. ma kona aoao komohana, a e loaa ai he wahi kiai kupono o kapalakiko i ka pae loa no ke pale ana, i na waa komo, o ka Puka Pula.

Ma na Mokupuni a pau a ma na Mauna Moana a pau, ma kahi o ka ikaika a ka hue ame ka oni a ka Pele, ma= laila e ike ia ai na anuu a me na puhalu, e like me me ka mea hiki ia ia kakou ke hoomaopopo e like ma ana moana i loaa mai; a he hoohalo ana ia, na oi ae ke kiekie o keia mau Mauna moana, e like mela e hoike ia nei ma Mauna Moana Belenapa. A pela no e hiki ae ke ike ia, ua ano puhalu nei ma ke kokoke ana mai i ka Mokupuni o Oahu nei, Pae Aina o Hawaii, kahi i pau ai ke ana hohonu moana ana.

Eia hou ke kahi Mauna Moana, ma ka Moana Atalanika, a ua kapaia, o ke Kuaiao Holoia. (Dolphins Ridge) Ua komo pu na Mokupuni Asore, ame ka Mokupuni o Bamuda mai ka Latetu 49° Akau a hiki i 22° Akau a ma ka Lonetu 20° Komohana a hiki i ke

66° Komohana.

Ma Kela e hiki ai ke hoomaopopo ia ka loihi o Ka Mauna, a i ole ia o Ka Aina kiekie maloko o Ke ~~Kahi~~ Kai Mai Ka Akau a hiki i ka Hema 2.800 mile, a mai Ka Hikina a hiki i Ke Komohana he 1560 Mile Ka laula. O Ke Kau ~~Ka~~ waha kohonu loa na like me 5.000 anana, na like me 30.000 Kapuai, (Kokoke 6 mile) Ma Ka Latetu 32° Akau a me Lonetu 57½° Komohana mai laila mai he hoopiina e hele ana i Ka Hikina i Ka hoo Mokupuni o Asore, aka, mai Ka Mokupuni aku o Bamuda he hoopii ikaa pau= =kiki na aku iluna, a ilalo. He umi mile ma Ka aoao Hikina o Bamuda he 200 anana. He 30 mile ma Ka Hikina aku he 1000 anana. I Ke 60 mile mai laila aku, ma ia moana hookahi no, he 5200 anana, Ka haule ilalo. he 200 mile hou aku ma Ka Hikina aku he 3000 anana, a hoomaopopo ana, he kuala Ka a mai laila aku haule hou i Ka 5000 Anana. O Ka hohonu mai Ka Akau a Ka Hema he loli. Mai Ka 1000 anana ma Kau waha a hiki i Ka 5000, anana.

Ma Ke ana hohonu o Ka Moku Manuwa Moana Juniata, Kapena Geo. J. Davis, mai Nu Ioka a hiki i Monetevideo, ua Kaha ia ke Ku o Ka noia mea, aia koi malaila, he Mauna Moana Ke Kahi i ike ia ma Latetu 30° 4' Hema

a Lonetetu 35° 15' Komohana, a i Kapaia e makaa o Ka Mauna Moana Davis, o Ka hohonu he 1136 Anana, a ma Latetu 31° 4' Hema a Lonetetu 34° 14° Komohana o Ka hohonu maia wahi he 360 anana wale no. He mea maopopo he Kualapa Keia o Ke Kahi Mauna Moana a ma Latetu 32° 1' Hema, a me Lonetetu 34-15 Komohana, aia hoi haule hou aku la, ka poka ana Moana i Ka 1625 Anana, O Ka haule ame Ka emi o Kahi hohonu loa he 2934 Kapuai. He 134 mile Ke akea o Kahi i ana ia ai o Ke Ana Moana. E hoomaopopo ana i Ke Kulana o na Mauna Moana Ala ma Latetu 31° 4' Hema a Lonetetu 34° 14' Komohana.

No Aia ma Keia Mauna Moana, Ka puhalu hou ana o Ka Lina i lalo, Ka mea hoi i hoike mua ia ae nei, elike me ia a ukou e ike la ma Ka Mauna Moana Belenapa, a ma Oahu hoi, a ma Ke Kualapa Naia, pela no ma Keia.

E manao lana ae Kakou, he Kumu Keia e pau ai Na hoopaapaa ana o Kue meka, no na Mea e pili ana i Ko Kakou Honua, a me Ka hoiaio ana, ina moolelo Kahiko e like pili ana no Ka hoopuhalu ia ana o na Aina kemi ole i Ke Kai.

Na Kuhikuhi ia, na ai Ka Moolelo Kahiko o Ka Honua ia Plato, Solona, a i na Kahuna Kahiko

o Aitupika, a i Ka Por Kahakaha papa pohaku o
Buke
Kaledia, a me Ka Kinohi a Mose, Ka Moolelo
no Ke Kai a Ka Hinaalii a Noa, a me Ka pu=
halu a me Ka Nalowale ana o Kalina puni
ole i Ke Kai, o Atalanika. E hiki ana paha
Ke hoomaopopo ia Ka oiaio o Keia mau Moolelo
Kahiko i manao wale ia he Wahahee. Aka,
i mea e oiaio ai, e pono no Ke loaa he mau
Kumu hooiaio hou. Mau olelo hoaka
wale no Keia, e haka ana i Kahi e hiki ai
Ke huli ia aku, a hooiaio ia Ka mea i olelo
ia ae nei.

He mea pono loa ina Aupuni Naau=
=ao Ke lawelawe a puili i Ke kana a hoomau
aku ina Ana hohonu moana, me Ka hoolako
ana ina mea e loaaai na mea oloko o Ka
Moana i mea e hiki ai Ke hoomaopopo loa
ia i Keia Kumu kana i hoopuka ia ae nei.
Aloko o Keia au kolo mua o na Oihana a pau
e pili ana i Ka Akea Kamai, ma Ka hiki
ana hoi kolo ina lako huli Moana ma Keia ano.
Ake Manao ia no, aohe mea hiki ole oia kana. E hoomau
pu ia Ka Manao Lokahi o na Aupuni a pau
e mea hoohalo ai Keia kana imua. Aole no
he kanalua, ma Kahi o na Moolelo Kahiko
e like me ia i olelo ia ae nei, i hoomaloka ia
a i manao ia he oiaio ole, e hoohua pauni
Ka wai wai me Ka ponaikai, no Ka Oihana Akea Kamai

i oi aku i Kona wa i hala.

Oiai, na hoaKaka pokole aenei, nahi=
=hiona o Waho o Ka ili o Ka Honua, e hoi ae
Ka Kou a weheweke ia loko o Ka Honua. Ua
like ole Ka manao o Ka por akamai Kulihonua, ma
Ke ano o Kona Koi koi ame Kona Manoanoa.
O Ke Kahi o por akamai kulihonua, i manaoia
ma Ka manao ana he ili lahilani Ka Honua.
O Ka por e hahai ana mahope o Keia manao
na olelo laKou, he ili lahi lahi Ka honua, a
maloko he Ano Ea ahi Mahu. O Ka lua o ka mana o
Kahi por, he Manoanoa paa pu Ka Honua, a o Ke
Kahua a Keia por i hoopaa ai, malunaiho
ame Ka hoonohonoho aya na na kuahelu e pili ana
o na Kelo ana, ina Hoku. O Ke Kolu o Ka
por manao no Ko KaKou Honua, He like
Ko laKou manao, me Ko Ka por mua
Hor nae, he Wai maKu a i ole he pele kehel Ke
Kahi ma loko o Ka ili Honua; mawaena
o Ka Honua paa o Ka ili o Ka Honua a me Ke
Kino paa o loko o Ko Honua. Ua hui
maKou Ko ouKou Konila i Ka Oiaio o Keia
mau Kumu hoike Manao a pau, a ua hooiaKou
aku maKou, ma Ka pakui hou ana, he
Ua Waimaoli no Ke Kahi, mamua o Kona
pili ana aku i Ka iho. Ea Ahi mahu o loko
loa o Waena o Ka Honua, a ua manao Ke
Konila ua pololei laKou.

E lawe mai KaKou i Ka manaoua o

Ka ili o Ka Homua, a kukulu iho he 40 mile
ke Kahua Kiko waena, a e paku mai i 35
mile mai Kona Kahua, i hiki ai ke hoopaa
ia ke ana wela loa o Ka Homua i ke 3300° degare, ma Ka
palena o ke Ka 75 mile Ka Mana hohonu
o Ka ili homua ilalo. Malalo aku o Keia palena
e hoomaka aku ai Ka pele hehee he 225
mile. E loaa no Keia ma Ka hoomaka ana aku
i Ka 75 mile Keana o Ka hohonu e hiki ai i Ka wela loa, me ke 3. Aka hoi malalo aku o Keia
palena Ka mana o ke Komike, aia hoi, he wai maoli
ke Kahi, a o Kona manoanoa a hohonu hoi wa
like me 450 mile hoi aku. Aia hoi loaa
ae la he koena ma Ka aoao o Ka Ea Makani
maoli iloko o Ka Homua, he 6.442 mile e pau pono ana Ke ona
waena kiko ponoi o Ka Homua.

Ua hilinai ia makou ma Keia Kumumanao
no Ka ike a maka ana i Ka nui o Ka Ea Makani
a me Ka Mahu mai na alualua ae, i Kaua
e pau ae ai Ka hua ana a Ka pele, a pelano
a hiki i Keia wa ma na Lua pela a pau e a ana
ke ahi, a me na ana pupuu e pili ana ia wahi. O Keia
manao ana he wa ia pepe hehee ke Kahi, na hooia ia
e Professor Dana, ma Kona hiki hou ana mai
ia nei. Ua hoopaa ia i Kona manao, he 40
makahiki i hala ae nei, i Kona hiki mua ana
mai i Ka Makahiki 1847-43, a aole no hoi i
loli Kona manao i Kona hiki hou ana mai
nei i Keia makahiki i ka Malama o Mei a Kona makaikai hou ia
i Ka lua pele ia — Kilauea.

Ina is pela, alaila, e pono no e Kapae ia Ka manao ana, na puka ae na Wai ame na Mahu mamuli o Ka no ana o na Wai o Ka Honua ilalo, a halawai mai ne Ka wela o Ka Pele, alaila pii hou i. Ke hiki i Ka palena o Ke 70 mile Ua pahu a peku maoli ia ae no na Wai pele Mahu, e manao ia nei, mai Kahe i oi aku Ka hohonu i ko na manao ana ma= mua aku nei; e like me Ka mailou i hoakaka ai.

I mea e hiki ai i Kahi e Kukulu paaiai Ka= oiai o Keia mau manao e paka ia nei, e pono no e hoi Kakou i hope loa i Ka wa Kahiko loa o Ka Honua nei, Kahi a Kakou e manao ae ai e Kiki Ke hooiaio. Ua paku i mai au i Ke Kahi papa i hoonohonoho ia, me Ke Kuau= =hau mai Kona hanau ana a Iiki i Keiawa, i hoonohonoho ia ma Keano o na wa.

Kumulipo

Na Wa Kinohi Loa.

Ka Makua	Ka La	Ka Wa.
1. Kaʻilo	Ka wa Hokuwelowelo	
2. Ka Lilo Opuu	Ka wa Hoku Kaiakea	
3. Ke Kuakanaka	Ka wawai	
4. Ke Keiki opiopio	Ka Wa pelehehe	
5. Ke Kanaka	Ka Hoopaakiko ana	

Ma Ke Kulana pelepono ana o Ke Kuauhau o Ka Honua ino ana mai, Kiki mai la i Ka Au papa Kuhonua, e uKali Koke ana ma hope mai o Kau ihala.

Kumuulí.

Na Ano o Ka Papa Ku Honua.

1. Kaoílo — Ke au Kumuhonua.
2. Ka Opuu — Ke au o na Meaola Kái
3. Ke Kuakanaka — Ke au o na Moo ~~Kola~~ Kolo
4. Ke Keiki Opiopio — Ke au o na Holoholona
5. Ke Kanakamakua — Ke au Noanoa ~~Kanaka~~.

Ma Ka iho ana o Ka Papa Kuauhau na Kumu Honua
Kulalani o na Mea Ola, e loaa ana nei ma na Kulana pii Jeneé.

1. Ka oilo — Ke Aupuepue a i Kapeia Silyriana ~~Devoniano~~
2. Opuu — Ke au Kenaia " Davonian
3. Ke Kuakanaka — Ke au Moo Kolo " Carbonepa
4. Ke Keiki opiopio — Ke au Holoholona " Mesozoika
5. Ke Kanakamakuaana. — Ke au o Kanaka " Terziaria.

Aole i paa ma Keia Kulana pii iho o Ke Kuauhau i Ka wa i puka a maka ae ai Ke Kanaka, aka, he makehewa paha Ke hoomi aku ina hoike ma Keia mea. Ua lawa ae la na hoike ana ia oukou i na mea e pili ana i Ke ano o na Ulu Kahiko o Ko Kakou Honua.

E hoi hou Kakou a e makaikai hou i Ke ano o Ko Kakou Honua i Kona wa Hoku Kukai = = akea. Ua hoi Aloko o na Miliona Makahiki, ua maalili Keia Hoku. Ua emi mai Kona Haiko ma = = lamalama ikaika a hiki i Ka Manawa ana a make iho oia. O Kona Malamalama aiai nui, hoi me Kona oni ola ana, ua kala Kahiko.
he mau miliona a miliona makahiki.

Aka, me ia luuluu no, a ohohua i Ke Kahiko, Ke malama nei no nae ia i Ke Kanawai ano mau, o Ka ume mamuli o Kona ike ana Ke Kaai puni nei no oia ma Kona ala, i Kela a me Keia la, a puni Ka makahiki, a puni Ka La i Ka poai ia. Aka, Ke Hup nei no nae ia Ua lawe ia Kona mau io, a Kon Kona mau wi i hoike no Kona mau hele = helena Kahiko. He Hoku i wi malo, e like me na Miliona o na Hoku make e like nei a. E ua ole ana mawaho o me Ka hoolohe i na Kanawai ano, ma Ke ano, he wahi hoomaha mau nona, a i Ka hopena, e Omo hou ia aku no ia i loko o Ka Opu o na mea Kino, i Kahi hoi ona i loaa mua ai ia ia Ke Ola.

I Ka wa i maalili ai Ka Honua, oia lele aku mai Ka ili honua mai Ka ili aku o Ka Honua e pahu ana i Ka wela a me Ke ahi i akoakoa i Kahi hookahi, iwaena Kopu o Ka Honua a i Ka paonioni ana, o Keia mau mea, a elua aia lanakila ae la Ko waho Kaomi ana. A pela i paipai ia ai, a hoohaiki mau ia o Kona ikaika me Ka liulin a me Ka loihi launa ole o na Makahiki, he mau miliona a miliona maka = hiki a hiki i Keia wa.

Ma Keia e hoomaopopo ai no hou Ke nee mau nei no Keia ano malili honua malalo o Kakou i Keia wa. Ma Keia ano Ke ola nei no oia a Ke wahi Hanu no. Aka, ua

like me he hanua puaa la. I nae ana, a mauliawa i like ai me ka mana i loaa ai iaia. Aole he ma=
=mao loa aku kahi a kakou e kii aku ai i kumu hoohalike. Eia ma ke kakou mau Pae Aina nei ke kahi Luapele nui i oi ae i ko na Luapele ae o ka Honua nei, e hoomoakakalea ai, i ke ano o ka hana a ka Pele malalo pono i malalo o kakou.

E manao kakou na maopopo ka manoanoa a me ke koikoi o ka Ili Hona ke hui ia me ka Pele hehee ame ka kino wai, ua like, a like ia me na Eahimakani, iwaena kou o ke kiko o ka Honua.

O ke papa kino wai, i hoopuka ia he manao oiaio, na kokua ia noia, e ka Manao o Le Conte e pili ana i na Luai Pele; a pani i ka hakahaka o maena o ka pelehehee me ka Eahimakani e pono ai ka pili ana o keia mau kino a elua, na hookomo ia malaila keia kino ano wai.

E hoomaopopo i ka hana a keia mau mea maloko o ka Honua, a oia mau hana na kokua ike a maka ia. E lawe kou mai kakou i ke kanawai o ka Uniu a hoopili aku, e like me ka wiliwili ana i ka wailoko o ke kahi Pakeke pinla, a paa ka wai iloko o Pakeke me ka hanini ole iwaho, i hoohaleke

Oiai ke mao kopo nei ia Kakou ke huli nei ka Honua ma Kona Poai iho, mai Ke Komohana a i Ka Hikina he hookahi iloko o na lua ke 24. Keia huli oiai me Kona lohi no, ua lawa no ka hoonui ana ina, (mea Kino) (o Ka Honua) Ubai he hee oloko, eoni a huli mai ka Hikina a i Ke Komohana Oiai e oni (a Kahe) ana na Mea Kino (na) wai, Ke Kahi aoao Keoni (la) hoi, a Ke huli la na Ea Ahi Makani ma Ka aoao Okoa mai Ke Komohana ai Ka Hikina, o like hoi me Ko Ka Ili o Ke Honua Kaa ana.

O Keia mau oni Ka Kaapaewaewa ana o mea oloko o Ka Honua, oiai, me Ka lohi a me Ka Nee Malie loa. E like la paha no me Ko Ka (di) (o Ka) Honua Kaa ana, Ke hui ia me Kona Kino awaawaa a puupuu o loko, e ike ia ana he mau alu (kupakapa) hohonu a he mau ano pii Ku o Ka Honua, me na alu, na poopoo, na Kuono ololo a (maka) lae hoi, (e) lilo (no) ana nei Keia mau mea ~~mehela~~ e loaa ai na Au (me na wai nokuhia) e like meda e ike ia nei ma Ka ili o Ka Honua.

Ua lawa Keia mau hoonioni ana a honaue=ue ai, e loaa ai (na) puahiohio ikaika, i Ka wa a ~~Ku~~ ame na Kau e hiki ai ia mau mea. Na Keia puahiohio ikaika, e ninini ana, e wili (ana) a pahu a puka, a oiai, aia oi aku Kona ikaika i Ko Ka Manoanoa o Ka Honua, aia hoi, ~~Kaou~~ ia aku nei Ka papa o na Uaikuu. Ka papa

pele kehee, a weli ia a puka ka ili honua kea he 75 mile Kona manoanoa. Aia hoi, e holo a mokuana ma Kona Ala e kele ai, ka mua o na Ea Ahimakani i hoike ia ma ke pahu kapuka ana o Ka Makani. O Kalua, ona mea kino loai, i hoomaopopo ia ma nui o ka Mahu ma ka ili o Ka Honua, a o Ka hope loa, o o Ka pele kehee i pahu ia mai, a i kahe me ka hooulu a anai kahi o kapa na mea oloko o Ka Honua i hoopuai ia mai au. a e waiho mokaki ana ma kahi i kahe ai o Ka Pele.

O na kapa E kuhikuhi ana ma ke kii ke ala o kahi e moe ana o na au, e kele ana a me na loai kahe moku hia e kahe ana.

Aia hoi ua hoike a maka ia aku nei na manao no na mea e pili ana i Keia Kumu Manao. O Ka wai hoolua poni ~~maloko o Ka Honua~~ oia Ka Ea ahimakani e pae nei maloko o ko Kakou Honua. O Ka wai hoolua melemele, oia Ka palena loai. O Ka Ulaula, oia, Ka pele kehee, a o Ka wai hoolua kapopo oia Ka ili honua a Kakou e Ku nei. O Ka wai hoolua pulu oia na Moana a me na kai a oukou e ike la.

Na Erea ame Ke ana Koikoi o na Moana

Moana.	Mile Kuea.	Ana Koikoi ma na Tona.	Na Paona
Poai Ann Hema	30.000.000	18.926.798.080.000.000.	200.000.000 43.026.037.699.
Poai Ann Akau	8,400	6.692.427.375.600.	024.000 12.757.037.331.
Alalauika	25.000.000	36.800.162.950.000.000.	000.000.000 82.432.365.008
Kaletika	175.000	1.075.626.197.880.000.	257.200.000 2.409.396.288
Kai Eleele	150.000	94.628.990.400.000.	000.000 211.840.988.596
Kai Kasapiana	120.000	75.703.192.320.000.	800.000 169.568.705.996
Moana Ina	17.000.000	25.024.110.806.000.000.	440.000.000 55.054.044.615
Kaiwaena Honua	1.006.000	846.193.461.482.000.	719.680.000 1.889.063.553.
Pakipika	50.000.000	73.600.325.900.000.000.	000.000.000 164.864.729.876
	123.459.400.	156.449.242.105.465.600.	534.704.000 610.096.747.017

Keana Koikoi a Manoa Noa o Ka Honua.

Ka ili honua he 75 Mile	24.234.237.694.110.000.000	Tona
" " " ma na Mauna	42.112.577.088.000	"
Kapele Hehee he 225 mile	221.597.717.504.330.000.000	"
Ka Wai " 450 "	1.373.897.415.954.660.000.000	"
Na Ea Ahi Makani 6412 mile	4.380.270.628.846.900.000.000	"
Hui ia me na Mauna	156.449.242.105.465.600	"
Huina Koikoi Nui.	6.000.156.491.354.682.553.600	"

Ma Ka hoonohonoho ana ina hua kelu i hoike ia ae la malama, na kui Ka pololei, e like me Ke kulana o Ko Kakou Honua i hoike ia ae nei ia a u kou. Ua hoopaio ana, i Keana koikoi o Ka Honua, i manao wale ia, (e like me Ke Ana Koikoi ana o Ka Honua) ma Ka Hoolewalewa ana i Ke Kahi popo Kepau nui, a pela hoi me Ke Kahi mea nuku, a ma Ka umi e akaka ai.

a o Ke ana Koikoi i hoike ma na hua helu i hoo=
nohonoho ia no Ke ~~Koa~~ Koikoi o Ka Honua, he. 6. ooo.
ooo. ooo. ooo. ooo. ooo. ooo, Kuinistitiona Tona.

Oiai hoi, na hoike ia ae la Ke ana
Koikoi o Ka Honua ma ~~Ke ana~~ o na Tona la
ao Kona ume Kaumaha he 5. 5, na hiki
loa ia Kakou Ke hoonohonoho a Kokoke like
ma na hua helu, ~~K~~ i Ka nui o na Mata
= hiki o Ka Honua, a maia hoonohonoho ana
ia ~~Ka~~ Ka nui o na Mataahiki o Ke Kahiko
mai Kona Ahnau ana a hiki i Keia wa.
o Ka Honua, 4. 591. 060. 337. 172. 200. Mataahiki
Ke Kahiko. A penei Ka Papa i hoonohonoho ia
no na wa, ~~ame ana~~ Au hoi.

Ke Kumu Lipo.

oia Ka wa Kinohi ma na Mataahiki.

Wa 1.	Hokuwelowelo Hokukuaiaka Wai	65. 586. 576. 245. 460 mataahiki
Wa 2	Pele Hehee Ka ~~Loa~~ hookino ana	196. 159. 728. 736. 380. "

Ke Kumu Uli

Oia Ka wa a Au Papa Kumu Honua

Wa 3.	Kean Kumu Honua Ke au o na Meaolakai Ke au o na Mookolo	1. 082. 178. 508. 050. 090 "
Wa 4	Ke au o na Holoholona Ke au o Ke Kanaka	3. 246. 535. 524. 150. 270. "

Huina o na Mataahiki. 4. 591. 060. 337. 172. 200. "

O Ka Hoonohonoho ana o Ke au o ua Makahiki o Ka Honua, e Ko Kakou Poe Kahiko he 4.000.000.000.024.750. Makahiki, Ua Kokoke loa Keia i Ka helu Matematic, aka ua hewa Ka hoonohonoho ana a hiki ole Ke hiliuai ia. Ua hana ia Ka Kakou Helu Kahiko ma Ka hoomui ana i Ka umi i Ka Ha. Oia hoi Ka Hookahi Kauna, apela ina Kaau, na Kaau na Mano apela aku, aka meia paewa no nae, he nani Ke Kokoke e like me Ka Helu Akeakamai.

Malalo o Ke Poo o na mea Kahiko, ua loaa i Ke Komite i Ka hoiliili ana. Jeneri -

I

17. Kii Pohaku. (Ekolu o Keia na Keliiahonui)
4. Kii Laau. Elua no na Mokupuni o Ka Honua.
1 Kii Palaoa.
6. Pa puaa Munui
2. Kanoa Awa
4. Ipu Kuha
1. Ipu aina
2. Pu Kaua
126. Ie Kukui Kapa
1. Papa Kapa.
84. Ie
62. Ohe Kapalapala
2. Kui Hono Upena
28. Ano o na Kapa.

4. Mamaka
3. Kookoo
5. Papa Kahi olona
9. Lei Palaoa
4. Kanoa awa Pohaku
2. Umeke ai Pohaku
1. Pa Pohaku
7. Ipu kukui Pohaku
4. Pohaku kui Poni
3. Kanoa Awa Laau
12. Pohaku kui Poi
12. Pohaku Kahi ai
2. Kupee niho Ilio
1. Lei niho ilio
6. Koko Umeke
4. Melo ia
5. ~~Pahu~~ Puniu Hula Hula
6. Paku Pai Heiau a Hula
5. Hokeo Paipu upena
6 Pohaku kui awa
2. Pohaku Melo ia
1. Pohaku ~~kui~~ Haku no ka Mahiole
1. Pohaku Hoana
38 Pohaku Maika
9. Pohaku Maa 2 na Keliiahonui.
3. Pohaku Hoomoa Manu.
12. Kuahonu Hopeolona
45. Koi Pohaku Kupa.

1. Umeke Paweke
3. Huewai Pohue
4. Ihe Makini
4. Laau Kauwila Moamoa
3. Newa
3. Pohaku Kui Limu
3. Kihene Kapa
5. Hokeo Lawaia
6. Waa liilii
1. Paepae Pohaku no ka puka ~~Pa~~ Pa.
21. Laka ~~kee~~ Luhee
10. Umeke pohue liilii
7. Lei Kukui
1. malo Hulu
1. Moena Paweke
1. Pakaukau Paweke
2. Popo Wauke
10. Kama Laki.
2. Hale Lau
1. Pa Ilio
2. Ikoi.

(41½)

* Ua loaa ka wa kupono i ke Komite e haawi aku ~~i Kona wa~~ i ko lakou Mahalo me ka hoomaikai aku, no ko lakou ae i ka Lokomaikai o Kapena Oxley o ka Moku Manuwa Beritania Conquest ame Kapena Nichols o ka Moku Manuwa Beretania Comonorant, Ia Kapena Davis o ka Manuwa Amerika Juniata, ka poe i kokua ma

II

Ka hana hou ana i na Mea Nalowale.

Malalo o keia Poo, ua loaa i ke Komite Hahoike ana aku, ua hana hou ia kekahi Ahuula, ~~ka~~ ke Oihana a hana hoi i Manao ia ua nalowale a aohe poeike i koe i keia wa e hiki ai ke hana hou ka Ahuula. O keia ahu he 2 ½ kapuai ka loihi a 1½ kapuai ka laula, me ka hulu melemele o ka oo ame ka Mamo o ka hulu ulaula no ka Iiwi. O ka upena he olona nae makalii. Ua lawa ka hiki ke hana hou ia ka ahuula, a ke waiho ia aku nei no ko oukou makaikai ana.

No ka hana hou ana i na Kapa me na Moena.

III

E ia mai na kapa na oukou e nana, oia no ka 'aeoka- ~~We have here to present for your inspection the Aeoka~~ -haloa. 2 ~~the~~ Paupau. 3 Ouholowai. 4 Paiula. ame ke Kilohana. (O na kapa ma kainoa okoa) oia ka 5 Uanahi, 6 Mahuna. 7 Paikukui. 8 Puakai 9 Mamaki 10 Pukohukohu 11 Nanahu. 12 Halukalu 13 Haimanawa 14 He Mao. 15 Puaniu 16 Paikukui 17 Hunakai. O ka Pele ame ka Akala, he mau kapa keia no Kauai, aole i loaa i ke Komite.

O na Moena e hoike ia aku nei, oia no
he Kumu ole, ame Ka Palau Manoanoa, a pala=
laha o he Kona o Ka pa Ka moena. O Ka Opili
he elua Kohana ia. O Ka Opuu o he Kolu ia o
he Kohana, a o Ka Makalii loa oia Ka Aku=
Lauhala a me Ka Makoloa. O Ka Paweke
he Moena Niihau ia. O Ke pakea he moena Niihau
no me Ka Pawehe ole. O Ka Ahaloa ame Ka aku
ao, he nau moena hinano keia. O Ka Ue ame
he Kumu Nuanua he nau Moena maikoanoa
keia no na Ku-a e mora i. He lauhala no Ka
mea e hana ia ai no Keia nau Moena.

O na ulana, he lauhala no, a he Ma=
Kaloa he Kahi, e ulana ia ai nawaho o na
Pauku laau Uiliwili, a e like hoi me he
Kulana o Ka mea nona Ka ulana. O Ka
lauhala Ka mea nui e ulana ai o Ka ulana
o Ka Makaainana, aka, o Ko na Alii, na
ulana ia me Ka Makoloa ame Ka wauke.
O Ka ulana kikiwi ipu awaawa, kikiwi na hana ia no
na keiki liilii i mea e pakiiki ai ke
poo. a he hana nau Keia no Ko Hawaii nei
poe i Ka wa Kahiko

O na inoa o Keia nau Kapa i hoike ia malalo
nei. he poo Kahi no Kapa, aka, na o Ka mana
inoa. Oia hoi Ka 1. Paiula. 2 Kalahale
3 Iwikoae. 4. Okioki. 5 Ahapii. 6 Okuoku
ame Ke 7. he Kalala.

o Ka hoolaka ina ana hokonu Moano, a ia
Mr John De Graves no Ka hana ana ina Kii
me Ka pololei a me Ka Maikai, aohe mea e
hoohalahala ai.

Ma Ka hookuu ana i Keia kaiolelo, Ke
Alawa ae Kakou a nana aku i hope, aoxnele
Ko Kakou Hanoli, oiai, me Ka Kakou wahi
haawina uuku i Ka Oihana Aka Kanai
na make pono Ko Kakou luhi ana, a na
make pono Ko Kakou mor poo ana, oiai
Kakou e hana ana a e luhi ana, me Ka
hoohala ole ana i Ka Manawa, e hiamor
a e palauaelelo
ana Ke Kahi por. ~~iloko o Ka Palaka~~. na pili
ae Kakou i manawa i mea e pomaikai
ai Ka lahui Kanaka a pau o Ka Homaiea.

Aohe mea e ae nana e hikii kii e hoopaa
loa ai ia Kakou ma Ka hoohui ana aku i Ka
Kakou mau hana me Ka Oihana Aka Kanai
a me Ka ike a Maanao i na Kanawai o na
Ano mau o Keia Honua. He mea e kapai
ae ai, a e hoonui ae ai, a e hoomalamalama
i Ko Kakou mau Manao, a e hoopii ae ai i ora
Manao laula, a akea koi, ma Ke Alanui o Ka e ake nui
ana e hiki aku i Ka Maaeao Kiekie pine
me Ka Oiaio.

Maanei, a ma Keia ano hoi
e Koaa ai Ka Kulana Kakou Maikai hou no Ko Kakou
Oihana, mamuli o Ka hoohui ana mai

Me na Oʻkohana me Ko Kakou mau kuhí
ame Ka Kakou mau hooikaika ana. Ko
Kakou mau Manaoʻ Lana, Ke Kakou
mau manaoʻio. Ka Kakou, mau hana
aloha, a me Ka Kakou
Kuiʻ Ke Aloha! ~~a me~~

Translation.

In entering upon this a discourse ~~of~~ which it having been allotted to me ~~my lot has been cast~~ to deliver the Annual address and to report upon the progress of the scientific branch of the Association, I feel it a duty: First To thank my coworkers on the Committee for the devotion, spirit and zeal with which they have entered upon their work. Second: To thank those of the Association who have given us material aid in the prosecution of our work and the procuring of Articles the Committee would not have otherwise obtained without their help. Third: To thank those not connected with the Association ~~for~~ helping the Committee to complete their work in the space of time allowed us and ~~for~~ furnishing Maps of deep sea soundings.

You must not think that our task has been an easy one. It has been an uphill work to us and attended by many drawbacks especially as the members of the Committee are entirely composed of Amateurs; nevertheless we have all worked with a will and we hope, our endeavors will not be unappreciated by you.

It must be pleasing and gratifying to you and those who are assembled here today to Commemorate the first Anniversary of our Association in

the revival of an old ~~look~~ honorable and institution of our forefathers to observe now Commencing from a small seed it has now grown to a ~~respectable~~ fair tree. Including among its membership all classes and Conditions of men, all profession and religious creeds from the highest to the lowest living in one Communion of love and respect toward one another

Commencing with a few as I have said our society has now nearly two hundred members enrolled, Each of there entering without persuasion or inducement, but by voluntary desire to ~~improve themselves in~~ absorb the Knowledge of Our ancient Mysteries and to enjoy ~~much of~~ the Charities and beneficiaries that our institution offers.

I have said that our ancient society had Mysteries ~~perform~~ in the working of the order. ~~Still~~ These are really no Mysteries. The ritual of our order consists simply of recitation Confirmation and obligations given at the initiation similar to ~~that of~~ any of the other organization of the same character. Nothing derogatory to reason or Common sense. Nothing impure or indecent, but its principal aim is to elevate the mind

to high philosophical truths so that we may ~~learn more of this material world~~ and follow the wise teachings and ~~the~~ precepts, and learn more of nature and of this world

The rap of the Ole at the Almoners Court has not been heard throughout the whole year. Neither have the sick required aid nor have the needy and poor visited the precints of the inner Court. Three deaths have occured and been reported during this year. That of Mr. Kanepuu, His Royal Highness Prince Edward Aaron Keliiahonui and Kahalehau. Deaths of each in which we all sincerely mourn. In the death of the former and last mentioned, the society has lost two of its most energetic members. Their knowledge of the Ancient folklore and their contributions to the Archæological branch made them the most useful members of our society. Their seats are vacant, but their deeds of usefulness remain for us to commemorate. An example of life worthy for us to imitate and follow.

As to death of the late Prince, though young ~~and as for his~~ he was exceedingly energetic and zealous and in his contributions in the Archæological branch of the Society. His name can be found

among the various articles and collections of our Museum. His example is worthy to be followed by us all and especially by the younger members of our association.

The good condition of our finances and the continual Application of members hership and the lively interest taken in the working of each Department gives us hope of progress and continuation of Our Society. What more can be desired than the continual progress, the vigorous growth the healthy condition of our Society and the hope of its future prosperity?

Lost in the oblivion of the past, the founders of our institution are unknown to us and only known perhaps in those persons who are perhaps named in the Ritual and in our ceremonies. Whatever and who ever they were, they have shown themselves to have been a class of men of ability and lived devoted to close observation of nature, skilled in the Arts and worthy to be claimed as the ancient sages of Hawaii nei.

They believed in purity of life and kept themselves secluded from the profane. They never practiced Polygamy nor married in the prime of life, and only took

The Historian Malo in his History David only mentions the Name of the Order, but without description of the institution. Mr Piianaia and Mr Unauna were among those of the last of the Wiseman that died with the last 30 years.

wives an advanced
to themselves at their age, to
beget issue in order to perpetuate the
wisdom and science they knew so that
they should not perish. They wore garments
of white Kihei or Tapa made to suspend
from their left shoulders and sandals
made of Papyrus on their feet. The white
and yellow malo on ceremonial
functions around their loins, all of
which were emblems of purity. They were
scrupulous to external cleanliness and
bath often in the sea, and
water for purification. The sign of red
clay (Alae) applied to their forehead is
also a mark of purification of
being the colour of our first ancestors.
They offered no bloody sacrifices, but
Commemorative recitations and sometimes
prayers to Kane and Lono. These indivi-
dual though human were considered
the embodiment of all that was
just and good. These sages taught our
ancient people the sciences of those
days, the building of their houses,
their canoes, the tilling of the soil and in the ma-
nufacture of utensils and materials
conducive to the happiness, health and life
of the people.

The practical working of these sciences

The feather Cape is worn by men and women in the "Degree of the Soldier".

men wearing a yellow feather Helmet and some times the Wooden Mask Helmet. The women principally wore the yellow feathered lei. The society as assembled, the wearing of these regalias as the Uniform of the members which unique and picturesque the colours blending in unison with light Bronze complexion of the Hawaiian Race

are applied to the moral lessons taught in the several degrees we have passed. These sages learned and taught astrology and Astronomy. In this manner they were enabled to undertake long expeditions and travel from place to place reaching as one of these expedition has been known to have performed the furtherest extreme point New Zealand, a distance of about 4.000 miles from Honolulu.

From our traditions we can glean the history of one of the expiditions. One of our ancient Kings Ke-ma, the 44th generation back from the present Dynasty. Having been of an adventurous spirit and learned the Art of Navigation and the Science of Astronomy, started on an expedition to procure the red-arum an article of food (the red-taro) considered as more nutritious and healthier food for the people and now called the Piialii. He was told by a wise man on Waialua Kauai, that he knew where the Apeula or red Arum could be obtained. That it grew in large quantities at Kapakapakaua and could not be obtained, until he took a long journey by sea. The instruction of the wise man was carried out and having pursued their journey they reached their destination, Beck the tradition does

who?

not speak of Hema's obtaining the desired object of the Expedition. He lived there for sometime, ~~Through~~ By collision with the aborigines his eyes were gouged out. Still he is supposed to have left progeny there to account for the New Zealanders or Maori race, according to their folklore claiming themselves a direct descent from He-ma. (See Sir George Gray's History of Maori Race)

He-ma's son Kahai followed in search of his father, reached New Zealand and in enquiring of ~~the [illegible] of his father~~ him was told that he was blind and he may be found further south of Tahiti. Disappointed in his search for his father. Kahai returned. the tradition says, he landed on Kau Hawaii, stayed at Paiahaa, from thence to Kalae and died at Kaili-kii. His bones as the History gives it are now deposited at Iao, Wailuku Maui the ancient place of depository of the chiefs of Maui, on the Kanalaaiki line.

Other adventures have followed at different periods, and it seems incredible How, ~~he~~ without the knowledge of the ~~modern~~ science of Navigation of the present day, they were able to sail their frail canoes by observation of the sun

moon and stars from land to land and returning to their point of Departure Covering a distance of over 8.000 miles.

The Ability of the men who planned and carried out these expeditions shows that they cannot be regarded as leaders of a barbarous Race. Neither were they men who fled from the persecutions of a Conquering race nor were they refugees of war, but they were men who undertook expeditions planned and fitted out for an express purpose, and for a most laudable object: And where will you read in the history of nations that a King or a Ruler of a nation would leave his country in a frail Canoe, such as they had in those days, (about the size of our Open Boats) fearing no perils of the ocean not the Contact and encounters with the ferocious races of the south seas in order to obtain a more nutritious and healthier food the Apeula or the Piialii for the good of his people. If there is one in the history of man and of nations I am not aware of the fact and would like to know.

Indeed, He-ma sacrificed himself for the sake of his people, for the traditions states that he suffered persecution and

people
his eyes were gouged out, by the ~~aboriginal~~
~~race~~ of that foreign Country. ~~Though~~ We have no
positive evidence that Kena's expEdition
brought the red-taro or red-Arum here, but
the fact of its being here, and ~~was~~ used
as a select food by the Chiefs, proves that
the second expidition made by Kena's
son Kahai may have been successful
in bringing it here, For the red-taro is
named the Piialii on account of Kahai's
visit to New Zealand. I quote a part
of the traditional Meles that have been
handed down "Pii Kahai, Koi Kahai
i ka Apeula a Kane &c &c" all of
which attests the fact of its having
been imported here by one or two of these
ExpEditions, ~~more especially~~ probably the second.

The date of the adventure of Kena
and Kahai, I have reckoned ~~the time~~
~~of the expedition~~ to have occured ~~in~~ A.D.
567, about 1320 years ago, This is ob-
tained by Computing 44 generations
from the era of Kena to the present
reigning Sovereign. Giving each genera-
tion 30 years duration will
give an Approximate in figures of
the above date.

In contradistintion to the Kahunas
of the order of the Priesthood of the Temple

these people or sages were also called Kahunas in a certain sense. Men skilled in the Arts. As a man skilled in working a canoe is called a "Kahuna Kalaiwaa" A man skilled in the knowledge of knowing the boundaries of lands is called "Kahuna Kilo iivi Aina" One skilled in the knowledge of the stars, is called "Kahuna Kilo Hoku" or one versed in Meterology a "Kahuna Kilo Ao" One skilled in medicine, a "Kahuna Lapaau &c"

They offered as I have previously mentioned no bloody sacrifices to the gods. Their offerings were simply composed of fishes, herbs and fruits and the fragrant leaves of the Pala and Maile. The offering of the fish ~~was~~ emblematic ~~emblematic~~ that fishes were the first ancestors of men. After the fishes herbs and fruits were offered ~~they were taught~~ teaching that they furnished food and life to man. The fragrant leaves of the Pala and the Maile ~~were~~ offered as incense and as an incentive in life to be good and just. They worshipped no Idols, but reverenced their forefathers ~~which is not written as Canonical worship~~.

The science of Genealogy were their

constant study hence a knowledge of the doctrine of Evolution a doctrine known to these people thousand of years back

The knowledge then of the ancient sciences of our forefathers is what is offered in the teaching of our order and from its lessons and precepts you must all be satisfied and assured that in them there can be nothing repugnant to your religious or moral feeling

As I have remarked at the first part of my discourse that we have among our society individuals differing widely in religious beliefs. Here we meet Catholics, Episcopalians, Presbyterians, Congregationalists and other denominations and nothing within the precincts of our Chamber is done or felt, but an Animation to do good and promote the welfare of our order

Science though is its fundamental principal. The knowledge of the ancient history of our people as viewed from the outside world does not appear creditable and people are apt to accuse our ansestors as being a most depraved and degraded race and without any moral standing, ~~When they viewed our ancient Temples and our wooden Idols, our human sacrifices, our feudal laws and system of taboo organized under the rule of the priesthood. Surely did~~ One of their his-

torians from abroad exclaimed "When the first band of Missionaries landed at Kaiwa only fifteen miles from this Bay Kawaihae in the spring of 1820, just 35 years ago upon the appearance of the natives ~~"the [illegible] [illegible] [illegible]~~

"A first sight of these wretched creatures was almost overwhelming. Their naked figures and wild expression of countenance black hair streaming in the wind, as they hurried the canoe over the water with all the eager action and unintelligible exclamations and whole exhibition of uncivilized character gave to them the appearance of being half-man and half-beast, and irresistibly pressed on our mind the query. Can they be men? Can they be women? Do they not form a link in creation connecting man with the brutes?"

"The officer heading the boat sent to the shore, on his return exclaimed as he ascended

the Deck, well if I never before saw brutes in shape of men, I have seen them this morning"

If these were the conditions of our people in 1820, a most favorable opportunity was lost to science. For in those days science had but faintly discerned the possibilities of the truth concerning man. A thick veil of obscurity was still suspended over his Origin and his place in Nature. Theology still held in hand the authority of interpretation. When the law of evolution was known by the energy and the untiring zeal of the Anthropologists and Embriologists this supposed impenetrable veil was pierced the truth laid bare inspite of theological assertions to the contrary.

When the observers of our people saw them in their rude and nude conditions frantic with delight in the exciting pleasures that the sport of surf-riding can only afford and give them and known to them by experience, it was excusable to show them in that light, but the motive without qualification on the part of the observers must be considered, that the characteristics given of the condition of our people as half-men and half-beasts

were applied in a spirit partial to their interests so that their work would have the justification of ~~the~~ taming these wretched creatures "as a link in creation connecting man with the brute". The observer and the Historian could not have a better verification of their remarks on these points. But it is a pity that though they have exhibited so much of their ignorance ~~that~~ they could not ~~exercise~~ exercise their Christian feeling ~~applied to a~~ to a better purpose than abuses. It is nevertheless a gratification that now after a period of another 35 years ~~elapsed~~, the very people ~~we~~ they measured under the qualification of "Brutes". Having ~~now~~ reached ~~the physical~~ an advanced stage, we have the opportunity of pointing out to them their want of knowledge in this respect.

~~I will commence by saying that~~ Evolution has proven without doubt that man is not exempted ~~from~~ in his physical nature ~~as a beast~~ from an animal. He is classed to belong to a family Catarrhinae Apes, and were there no further developement the conditions of the observer and the observed would have been in the same category of physical and mental standing. We will make the distinction for the benefit of the historian and his authority. The

isolated condition of Our Islands placed its inhabitates in position still maintaining a reliance upon physical strength for his sustainance in life which gave him no opportunities of ~~psychological~~ higher intellectual developement On the other hand ~~that of~~ the observers ~~which has already passed its zoological status~~ had reached a point ~~to~~ which which he considered far in advance of the state of the Islanders ~~psychological developement have been attained. When one of these conditions~~ upon comparing these conditions ~~were observed by that of the other~~, it was enough for one of them to make a declaration and express with emphasise his self congratulation ~~which amounted to a reflection~~, but it would have been far better if these utterances were expressed more in a spirit of philanthropy then in that of intolerance and bigotry. Such being the Standard by which the character of our people was measured we can dismiss the reverend historian and his comments as coming from a source irreverently ignorant.

Below ~~Like~~ the hidden stratum that underlies the crust of the surface of the Earth are laid other strata concealed from observation. And as we penertrate deeper and deeper into the recess of the past a mine of Archaeological wealth is unfolder to us that ~~makes~~ ~~pause~~ causes us to wonder. How with their crude but ~~and common sense~~ sensible deductions from ~~of~~ the observance of natural phenomena ~~that~~ they have arrived so near the truth ~~to~~ and to accord with the ideas of modern sciences.

The recitations of the duties of the of-

ficers marking each station showed they had ~~a ancient idea and~~ a Cosmogony of their own. The work of your Committee has been done for the benefit of the members to unravel its meaning & explain and working out mechanically the illustrations & plans and diagrams representing a Cosmographic form of our Earth.

This figure exhibits as we may suppose the world to have appeared in its Nebulous form. A luminous ball composed of a highly intensified Electric incandescent mass. Its parental source we have presumed to be a matter expelled from Our Sun. On this principle as in the illustration you will observe ~~is the~~ which our moon was expelled from our Earth. The wavy gaseous clouds and perturbances as you see are caused by external violent cyclonic forces gathering gaseous materials and expelling them in a revolving form from our Earth.

The cyclonic force forms a flaming aura Corona reaching to such an extended space, than with its own repelling power ~~repulsive~~ ~~solution~~ It detaches itself from the Earth as you see in the illustration a gaseous ball nearly in the same state as its parent the Earth

forming another Earth, but infinitely small=
er. Now here is ~~your~~ our Earth and this our
Moon. Passing as I have endeavored
to illustrate from an embrio gaseous
ball to its present condition.

~~The theory of the wavy Corona is ad=
vanced from the fact of Changes taking
place on objects of the sun. Sometimes
they are seen on the outter rim, sometimes
nearly the center, at other times it disap=
pears and again at other times is seen
on the surface of the sun as seen at
Eclipses.~~

~~The smaller Earth mentioned above
I have presumed that this is the Maka=
lii mentioned in the Recitation and ac=
cording to our ancient Calendar of months
it is recorded as July one of the warmest
months of the season.~~

This will dissuade from footgoing you though of the
prevailing idea among us, that the ap=
pearance of a form of a human head
in the moon is considered ~~that the moon
is considered that the moon is~~ a man
exhibiting only his face. You have often
heard it expressed as a common saying of "Maka=
lii" food in the moon and of "Lonomuku"
face in the moon. "Hinaaiakamalama"
in the moon, and "Waka" in the moon.

Now you can see how easily those old ideas can be expelled from further belief in them.

~~(See above)~~

We will now pass on from our moon to our Earth you have already seen a representation of it in its gaseous states. Here is an illustration of our Earth in its cooled state. I have taken the diameter of Our Earth and cut it into two equal parts at the equator. Latitudinally as you would cut an orange in two parts and here you will perceive with wonder and astonishment that instead of a perfect uniform sphere you have a figure as irregular and rugged as anything can be imagined. The form of the Earth as you see without the sea to give it an aspect of decent clothing can only be compare to an old withered potator. In this shape of deformity it continues on to the 20th parallel North Latitude as you see on the Map, where it shows the same ruggedness up to the 40th parallel, but on reaching the 60th and 80th parallel, the ruggedness gradully disappears as you see on reaching the 82° of Latitude we have almost a perfect round Ball. The clothing or covering of the sea on the last parallel mentioned conceals the undulations and though but slight, gives it the appearance of a perfect sphere.

The other half of the Earth, from the Equator to the 20th 40th 60th and 80th parallel

South Latitude I need not further explain as you can see for yourselves ~~the general principles~~ to be the same as has been explained to you on the Northern Latitudes

You have here exhibited in view a "Diametral Physiography" of the earth drawn to a vertical scale of 1,000 fathoms to the ½ inch. And perceiving as you do its general outline and character, you will be at once brought to the convictions, that whatever may have been the prevalent idea and universal belief in the past of the uniformity of the Earth's surface, ~~which~~ the delusion is made apparent ~~the poetry of its much lauded perfectness and grandeur is at once expelled from the mind~~. It would be superfluous to add words of Explanations as to these Diagrams set before you, which explain everything

On this Map you will perceive bearing from San Francisco South 65° West, at a distance of 758 miles, A submarine mountain which we have called the Belknap submarine mountain in honor of the Discoverer. Sections of Sounding due North and South are in Longitude 137° 38' West, Latitude 31° 48' North is 2480 fathoms or 14,880 feet On the same Longitude and Latitude 33° 40 North the sounding in depth proves to be

only 388 fathoms or 2328 feet.

Here you have a mountain nearly equal to the height of Mauna Loa on the Island of Hawaii, at an elevation from the plateau of the sea raising to the height of 12,042 feet. Passing on the same Longitude 132° 38' West to Latitude 33° 46' North the sounding sinks to 2,840 fathoms or down to the locality of the greatest depression the depth of 14,888 feet.

The great depression is here calculated to be 360 fathoms or 2,160 feet extending further than the line of the plateau. Ships sailing over the line of the great circle course from San Francisco to Honolulu pass over the Western portion of Belknap's submarine mountains. If the people of San Francisco is aware of the locality of the mountain and why they are shaken up at times with Earth Quakes, they can at once now know the causes. There is nothing though to expect serious alarm from the irruption of Belknap submarine mountain. A shock though may be expected in 1890 which will probably raise it a 100 feet higher. The year 1900, higher still until it will reach the surface. We will then have and opportunity of Congratulating Uncle Sam for the acquisition of a New Territory near

its Western frontier which may turn out useful in Guarding the Entrance of the Golden Gate

I will continue by saying in all Islands and submarine mountains where the greater internal forces have operated, showing a depression, the tendency is to show this remarkable feature of indenture in that locality, so far as we have soundings of them, is a proof of its being higher at one time than what is actually is. The same depression is as here observed on Belknap submarine mountain is again seen as you observe on nearing the Island of Oahu Hawaiian Islands where the soundings end.

Here is another example of the same Nature in the Atlantic Ocean of another submarine mountain which is called the Dolphins Ridge, including the Azores Islands and the Bermudas extending from Latitude 49° North to 22° North and Longitude 20 West to 66° West.

This would give the length of the mountain or land under the sea, to be from North to South 2.800 miles, and East to West 1760 miles. The greatest depth is 5.000 fathoms or 30.000 feet. In Latitude 32° North and Longitude 57° West from which there is a gradual rise to the East or towards the

Azoires Islands, but from the Bermudas Islands the soundings are very sudden and deep. Ten miles East of Bermudas is 200 fathoms, 30 miles to the East is 1,000 fathoms 60 miles further in the same direction is 5,200 fathoms, 200 miles further still East is 3,000 fathoms marking a ridge, then again a sudden depression to 5,000 fathoms. The depth from North to South varies from 1000 fathoms to 5000 fathoms.

From the soundings of the U.S.S. Juniata, Capt. Geo. J. Davis Commander, from New York to Montevido which we have drawn a special Map for the purpose a submarine mountain seems to exist in Latitude 30° 4' South and Longitude 35° 15' West, which we have called the Davis' submarine mountain, the depth 1136 fathoms and in Latitude 31° 4' South and Longitude 34° 14' West, the depth was 360 fathoms, evidently sounding on top of a submarine mountain and in Latitude 32° 1' South, Longitude 34° 15' West, the depth drops down to 1625 fathoms having a fall ~~of the depression or break~~ on the plateau of 2934 feet. Having sounded over the mountain in a South East Course a distance of 134 miles. Placing the position of the Mountain in Latitude 31° 4' South, and Longitude 34° 14' west,

Here again the same sudden Abrupt depression is noticed to which I have already alluded The same features as you see on the Belknap submarine mountain on the Island of Oahu where a similar depression is seen and on the Dolphins Ridge, occurs on Davis' submarine mountain.

~~It is hoped it would~~ let us hope that it will be ~~made~~ useful ~~studies~~ in settling many Conflicting ideas and theories respecting our globe as well as perhaps of proving the traditional events of Sunken Continents;

To Plato Solon, to the Priests of ancient Egypt, the Chroniclers of Chaldea and the Pentateuch of Moses, are attributed the sources of traditional history of the Account of Noah's Deluge and the loss of the Continent of Atlantis. These fabulous accounts may now be turned into a scientific authenticity ~~of its truth~~. Still further proof is necessary. These remarks are merely tentative for a more thorough investigation of the theory ~~of~~ which we have ~~observed~~ mentioned.

Enlightened governments should take this great work in hand and Continue its soundings and furnish appliances for deep sea researches to the perfect satisfaction of the theory advanced ~~for the benefit of science~~. In this age of Advancement ~~of~~ in all branches

of scientific Knowledge where mechanical Appliances could further research in these matters, there would be no difficulty ~~to~~ which could not be surmounted. International spirit should ~~have~~ be called in for the furtherance of science in this direction. There is no doubt that the seas and oceans where traditional history heretofore have been neglected and considered fabulous may yield to science, instruction ~~Archiological occultism~~ Tenfold more than has hereto been known.

Having given a brief description of the external physical structure of the Earth let us speak as regards its interior. Geologists have disagreed as to its density. ~~There theories are nevertheless maintained as to its nature.~~ One of the theories is that called the ~~The first of these is the~~ thin-Crust theory. The advocates of this theory advance the idea that a thin crust covers the Earth and in the interior exists a mass of gaseous matter. The second theory is that the Earth is a solid body. The advocates of this theory established it upon Astronomic ~~its deductions~~ calculations. The third is "that there exist under the Earths Crust a semi-liquid stratum between the solid Crust and a solid Nucleus" To these theories we have added besides the semi-liquid a purely liquid matter before it reaches the gasseous matter

in the interior of the Earth.

how can they be?

The Opinion of the Committee is that ~~the three~~ their theories are correct ~~but each of them are undefined. The Committee is though more in favor to the last than the other two, nevertheless in the endeavor to base a confirmation of the facts it proves to a certain degree the First and most decidedly the second, the third having merely added to the other two a semi-liquid material to account for certain existing phenomenal matter under the Earth's crust. We will nevertheless explain.~~

We will take ~~then~~ the Crust of the Earth to the depth of 40 miles as an intermediary point, adding 35 miles from the base of 40 miles to establish the heat ordinate at 3500° degrees as the fusing point at the depth of 75 miles. Under 75 miles we will suppose Commences the semi-liquid stratum reaching as we have calculated to the depth of 225 miles. This is obtained by multiplying 3 Times 75 miles the fusing point. Still underneath this Strata the Committee has ~~allotted another~~ extends for the existence of purely-liquid matter, reaching at the depth of 450 miles, leaving a balance to the credit of Compressed gaseous matter in the interior of 6,412 miles diameter of the Earth centre. ~~The semi-liquid which we~~

have termed the Molten matter and the purely liquid matter of which we have termed the Aquosite matter adhereing to the interior curviture of the Earth Crust by gravitation.

This theory we have assumed to account for the immense quantity of gas and steam as seen in crevicess and open pressures arising to the surface after an irruption had taken place and are now occuring in active volcanos and their surroundings. The theory of liquid has been partially sustained by Prof. Dana on his late visit to our Islands a theory advocated by him 40 years ago on his first visit in 1842.–1843. which opinion he sees no reason of changing on his second visit to Kilauea this year.

Such being the case, the idea of percolation of surface water through a density of 75 miles and reaching the fusion point must be given up. The water or liquid matter by pressure is forced from a greater depth than has been heretofore calculated which we have explained above.

In order to reach a definite point of establishing the hypotheses advanced we must go back to the palcontological history of the Earth where we might expect to arrive at a plausible

Conclusions ~~of facts~~ I have here appendid in tabulated form a Palæontological table bearing upon its Evolutionary stages to the present period.

The Geogonical Period.

Parent	The Sun	Period
1st The Germ	The Comet }	"
2d The Egg	The Nebulæ }	"
3d The Embryo	The Aqueosite }	"
4th " The Infant	The Molten }	"
5th " The Maturity	The Crystalization }	"

Progressing higher in the scale of the Earths Evolution we come to the Geological stage of developement which immediately followed the other.

The Geological Period.

			Period
1st The Germ	or	The Ezoic	
2d The Egg	"	The Palæozoic	"
3d The Embryo	"	The Mesozoic	"
4th " The Infant	"	The Cenozoic	"
5th " The Maturity	"	The Psychozoic	"

Passing on still higher in the scale of Evolution in the line of Geology of the Organic Series we come to the following stages of developement

1st The Germ or the Molluscs or the Silurian Period
2d The Egg or The Fishes or the Devonian "
3d " The Embryo or The Reptiles or the Caboneferous "
4th " The Infant or The Mammal or the Mesozoic "
5th " The Maturity or The Man or the Tertiary and Quaternary

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1st The Germ or the Molluscs or the Silurean Period
2d The Egg or The Fishes or the Devonian "
3rd " The Embryo or the Reptilian or the Caboneferous "
4th " The Infant or the Mammal or the Mesozoic "
5th " The Maturity or the Man or the Tertiary and Quaternary

or Present.

The scale of Evolution does not stop at the Existence of man but it is needless to multiply proofs bearings upon the subject we have on hand - Enough has been shown to illustrate to you the Palaeontological history of our Earth.

Let us go back and view our Earth again in its Nebulous Condition. In million of years this Nebula cooled. Her light giving power gradually became less until exhausted, like all life giving matter she dies. Her previous brilliancy and grandeur, her activity, her life has departed millions upon millions of years ago. Hoary with age she still obeys the laws of gravitation by her yearly Cycle around the Sun, nevertheless she still exist nothing remaining but her External fossilized remains to represent her original form. A fosil planet in our Solar System like millions of her Kin fixed to obey the unalterable law of nature as a resting place until finally to be absorbed again into the womb of matter that first gave her life.

At the period of the Cooling process of the Earth, the surface heat evaporated driving the gaseous matter to the centre and in the struggle of the Elements, the Cooling process of external pressure prevailed, Narrowing

and limitting her internal powers by degrees which have taken millions of years.

You will perceive then that this internal Cooling process is still going on beneath us. In this Capacity she still lives. There still remains within her a certain degree of vitality though of a lesser power than what she first possessed. We need not go far for an example. Here on our Islands the greatest Volcano in the World must be taken as a faint illustration of the Elements underneath us.

We will then suppose that the density of the Earth's Crust being understood which must include the Molten and the Aqueous matter is equal to that of the gaseous matter in the Centre of the Earth which have been calculated to be degree of density equal to.

~~These three substances and may be in its elementry Capacity as solids having a certain Amount of density in weight Confirmins as I have previously stated as regards one and the other of the three theories. To the first The two Elements are Considered when taken in a general sense true as to its elementry Capacity. To the second it is a solid body when Considered in the manner I have just elucidated still the Third has a base of facts that~~

~~Cannot be ignored. Therefore these theories Combined posses the value of the products of each without diminution or depreciation of either.~~

The theory of the Aqueostic element of which we have advance can be sustained by Le Contes principles of Volanic irruptions and to supply a deficiency of the Molten element we have added as a material of lesser density, ~~Coheren~~ existing with the gaseous ~~element~~ an Aqueostic element.

We must now account for the action of these elements in the interior of our globe which action we shall suppose are actually manifested ~~by motions of local pressures and other causes~~. We will again apply the law of gravitation similar to the principle of swinging the water, inside of a bucket which we here refer ~~ed~~ for the sake of illustration. As we know the Earth turns on its Axis from West to East once in 24 hours. This motion whatever we may Consider ~~d~~ slow is enough to compell the liquids in the Centre of the Earth to move in the direction of East to West. While the liquids are moving in one direction the gaseous matter is moving in the opposite direction from West to East or taking the same Course of the outter crust of the Earth.

This divergent motions in the interior though

slow and possibly moving in the same ratio as the Earth turns on its daily Axis even perhaps slower and unperceptable, Combined with the irregular forms showing deep depressions and high elevations in the Earth's interior, Having Nooks and bays, points and capes, allows the pressure and force of the Elements to operate in currents and tides similarly exhibited in the Exterior part of the Earth.

These motions and forces are enough to produce a vortex to create Interial Cyclonic storms at periods most favorable to its operations. Striking a point where the vor tex is the greatest, the power of Expulsion and pressure being greater than the density of the Crust, presses through the Aqueous Element the Molten Element and pierces the 75 miles of hard Crust, Carrying in its wake First the escape of the gasseous matter which is manifested by the explosion, Second the liquid matters which is seen on the surface by the issue of steam, and Lastly the debri of the homogeneous matter or lava that which covers the area affected by eruptions and its sorroundings —

The arrows, represented in the illustration points to the directions taken by the interal motion of the tides or Currents.

Here you have occularly demonstrated before you the theories advanced. The interiors coloured in violet represents the gaseous pent up matter. The yellow colour represents the Aqueostic matter. The red colour represents the Molten matter, and the Ash or brown colour represents the solid hard homogeneous matter on the surface of the Earth. The blue colour which you see represents the seas and oceans.

Areas and Weight of Oceans.

Oceans	Sq. Miles	Tons Weight Avoirdupois	Pounds Weight Avoirdupois
Antarctic 1½ m. deep.	30.000.000	18.926.798.080.000.000	43.026.037.699.200.000.000
Arctic 1¾ m. deep.	8.400	5.692.427.375.600	12.751.037.331.024.000
Atlantic 3½ m. deep.	25.000.000	36.800.162.950.000.000	82.432.365.008.000.000.000
Baltic 1½ m. deep.	175.000	1.075.626.197.880.000	2.409.396.283.251.200.000
Black sea, 1½ m. deep.	130.000	94.628.990.400.000	211.840.938.596.000.000
Caspean Sea 1½ m. deep.	120.000	75.703.192.320.000	169.568.705.996.800.000
Indian Ocean 3½ m. deep.	17.000.000	26.024.110.806.000.000	55.054.014.615.440.000.000
Mediterranean Sea 2m. deep	1.006.000	846.193.461.482.000	1.889.063.353.719.680.000
Pacific Ocean 3½ m. deep	50.000.000	73.600.325.900.000.000	164.864.729.376.000.000.000
	123.459.400	156.449.242.105.165.600	610.096.747.017.534.704.000

Density of the Earth.

The Earths Crust in 75 miles 24.234.237.694.110.000.000 Tons.
The Earths surface " Mountain 42.112.577.088.000 "
Molten matter " 225 miles 221.597.717.504.330.000.000 "
Aqueosetic " 450 " 1.373.897.415.954.660.000.000 "
Gaseous matter " 6412 " 4.330.270.628.846.900.000.000 "
Total weight of the Earth — 6.000.000.042.112.677.088.000 "

The Oceans added 156,449,242,105,465,600.

Total 6.000,156.449,354,682,553,600

By the above calculation which is as correct as can be ascertained in accordance to the physical Construction of our Earth as has been shown you, confirms the principle of solving the weight of the world in a remarkable degree, by the method of a large lead ball attracting a small body to which figures are given at 6.000.000.000.000.000.000 tons. that X. Having now the Earths weight in tons, and its gravity 5.5. we are therefore enabled to form an approximation in figures as to the Earths Age, which has been estimated to be 4.591.060.337.172.200. years old.

Geogonic Period in Ages.

1st Period	Comet, Nebulæ, Aqueous	65.586.576.245460 years. (65. 586 576 245 460)
2d Ditto	Molten, Crystalization	196.759.728.736.380 " (196. 759. 728. 736. 380)

Geological Periods

3rd Ditto	Eozoic, Palæozoic, Mesozoic	1.082.178.508.090 "
4th " Ditto.	Enozoic, Psychozoic	3.246.535.524.150270 "
Total —		4.591.060.337.172.200 "

The Ancient Hawaii Chronological age of the Earth is Computed to be 4.000.000,000.024.750 which is very near to the Calculation Computated under the usual mathematical methods but very imperfect and unreliable. Their method of Computations is Calculated by the multiplication of ten to a unit, to tens, hundreths, thousands tens of thousands and so on, but, nevertheless it shows you how near these two calculations come.

Under the head of Archeology, the Committee have been able to collect the following - Ancient Curiositys.

See page 36 and in Sert here

I.

Restoration of Lost Arts.

Under this heading your Committee has been able to report the success in the manufacture of a royal feather mantle or Cape as made by the ancient people of Hawaii. The Cape is 2½ feet long by 1½ foot width and ornamented by yellow feathers of the Mamo and the Oo, red feathers of the Iiwi and black of the Oo. The net work is made of fine meshes of the Olona fibre. A restoration as Complete as can be desired and now presented

for your inspection.

III.

Restoration of Tapas and mats.

We have here to present for your inspection the [1]Aeokahaloa, [2]Paupau, [3]Ouholowai, [4]Pau Paiula & Kilohana (are all tapa but different Names) [5]Uauahi, [6]Mahuna, [7]Paikukui, [8]Puakai, [9]Mamaki [10]Pukohukohu, [11]Nanahu, [12]Kalukalu [13]Haimanawa, [14]Hemao, [15]Puaniu, [16]Paikukui, [17]Hunakai, Pele and Akala are tapas made on Kauai, the Committee have not been able to restore.

The mats here presented are the:— Kumuole or Palau thick and broad mats one strand is called the Launui which is a sample. Opihi is two strands. The Opuu is three strands and the Makalii is called the Ahu-Lauhala or the Ahu Makaloa. The Pauehe is the Niihau Mat. Paked is Niihau without ornament or colour. The Ahaloa and Ahuao are made of the flower of the Pandanus. The Ie and the Kumu Nuanua a thick double thrible and quadroble mats made of the Pandanus principally for sleeping

The pillows or Ulunas as they are called are of different qualities accor=

ding to the rank of the individual. The Pandanus are used principally by the Common class, but the Chiefs had their made of the Makaloa weed and the papyrus. The gourd pillows are made for the Children in order to flatten their heads a custom used very extensively in Hawaii nei in the old time.

These tapa's a principally of one kind of manufactury but of different ~~in~~ prints.

1. Paiula Red Coloured Tapa
2. Kalahale Red Edged.
3. Ivikoae Striped Stuff
4. Okioki Divided Stripes
5. Ahapii Triple Stripes
6. Ohuohu Grey Colour Tapa
7. Kalala.

III.

Under the Heading of Curiosities.

17. Stone Idols 3 of these were contributed by the late Prince
1. Ivory "
2. Wooden "
6. ~~Tig~~ Wooden Platters
2/3. Wooden Wash Basin ~~dishes~~ Bowls
4. Wood Spittoons
4. Wooden Calabashes.
1. ~~Sugar cane knife~~ Slop bowl
2. War trumpets
126. Tapa pounders
1. Tapa board

84. Tapa sticks
62. Tapa Printing sticks
2. Wooden net needles
28. Pieces of different kinds of tapa.
4. Sticks for carrying poi
3. Canes
5. Olona boards
9. War necklaces
4. Stone awa bowls
2. Stone calabashes
1. Stone plate
7. " lamps
4. " for pounding Noni or Awa
3. Wooden Awa dishes
12. Poi pounders
10. Poi Mashers
2. Dog teeth anklet
1. Long string of dog teeth
6. Calabash nets
4. Fish Stick
5. Small drums
6. Large "
5. Gourd calabashes for keeping nets
6. Awa stones
2. Stones need for deep sea fishing
1. Stone model for helmet
1. Grind stone
38 Maika stone
9. Sling stones 2. H.R.H. Prince Ed.

3. Stones for cooking birds
12. Olona scrapers
45. Stone Adze
1. Printed Calabash
3. Gourd water jugs
4. War spears
4. Kauwila sticks used in a game in the olden times
3. War Clubs
3. Lime Stones
3. Clothes basket
5. Baskets used for fish hooks & lines
6. Small canoes
1. Door stone
21. Stones used for catching squid
10. Little gourd calabashes
7. Kukui necklaces
1. Feather girdle
1. Paweke mat
1. " Table cloth
2. Bundles of Waulke
10. Sandals
2. Thatched houses
1. Dog plate
2. War snare clubs

The Committee have now the opportunity of expressing their indebtedness to Captain Oxley of H.M.B. M's ship Conquest to Captain Nichols of H.M.B.

Ship Commorant, to Captain Davis of the U. S. Ship of War Juniata who assisted in furnishing soundings, and to Mr. John De Greaves the ~~draft~~ draughts man who have executed the diagrams so accurately and creditably that they leave nothing ~~more can~~ to be desired.

In concluding this address, we cannot but ~~help~~ feel, looking back to the past years work of our Association with a gratification and pleasure, that our contribution to science though limited and small in its way, is something worth ~~belong~~ laboring for, and at our leisure moments where others are wasting their time in idleness, we have occupied it for a useful purpose for the benefit of mankind

Nothing Can bind us more firmly then ~~our~~ the union ~~in Connection~~ of our pursuits with science and the Knowledge of Nature tending to elevate, enlarge and enlighten the mind and to enhance its liberal spirit to a higher aspiration towards of Knowledge and Truth. Here we find a new ~~tension of strength in finding social in-~~ field for our stitutions by uniting with ~~them~~ our efforts our hopes our faith our love and our Charity.

HALE NAUA.

The second address by the Honorable Antone Rosa, at the annual Meeting of the Hale Naua, or ~~House~~ Temple Science of ~~Wisdom~~ was delivered on the evening of February 4th, 1889- at Iolani Palace. His Majesty presided as the Iku Hai or Presiding Officer for the ensuing year.

The Society were in full regalia. The members presented some what a novel spectacle as it entered the Throne Room marshalled by Major Samuel Nowlein, and marched in procession.

The regalia though simple was gorgeous. The Ladies and Gentlemen wore a cape over the shoulders of yellow and red colours resembling the true Royal feathered capes. Around the waists were worn Aprons of a triangular shapes with a figure of the Sun in the centre. Those worn by the men were yellow, and by the ladies red. The principles outward dress of the ladies was a loose white dress or Holoku. Outside of this dress worn banded around the waist, was the ancient yellow Pau made of tapa or native cloth from the fiber of the Paper Mulberry. A wreath of yellow feathers was also worn around the head. The gentlemen were attired in plain white suits.

An Arch decorated with flowers and ferns entwining its columns was placed in the middle of the Aisle. After the Grand honors were given and as the Presiding Officer passed the Columns of honor, advancing towards the Arch, a cord decorated with flowers and ferns which was strechod across the Arch was lowered as he approached, by two men, one on each side of the columns supporting the Arch.

The Iku Hai or Presiding Officer which was no other personage than the King himself stepped over the floral and Sacred cord that lay upon the floor and passed the threshold of the Arch. As soon as the Ceremony was over, the cord was raised, the Iku Hai and two Kahili bearers took their seats below the Throne facing the Arch. This ceremony being an ancient custom belonging to the Family of the Present Reignin

Dynasty. The three principle officers then took seats facing the Presiding Officer. First- was Mrs C.H. Ulukou, the Secretary. Second, on her left was the Hon Antone Rosa, the Orator, and next on the left of the Orator was Mrs J.P. Kahalewai, the .Treasurer. In the Throne Room the King and Royal Family were seated in front, the Diplomatic and Consul corps were placed upon the left, and the Captains and Officers of vessels-of-war in Port wereplaced upon the right; many of the most respectable ladies and gentlemen of Honolulu who were invited guests were granted seats within the places mentioned.

The Secretary rising and after the salutation to the King and Ro Royal Family, read her report in English, in a pure distinct and audible voice. Every word was plainly heard in the large and spacious Throne Room. The Treasurer then followed in the same manner reading her report in English. The appearance delivery and presence of both ladies were remarkably fine. Then followed the address by the Orator.

The subject of the Address, was upon a Scientific Work, to which he had reffered on a similar occasion last year, and this was the " Continuation and the Conclusion."

Maps and Diagrams of the Work were placed at a conspicuos place and hung upon the Walls. The science is called " The Diametral Physiography-" of the Earth, at which the Scientific Section of the Society has been at work for the last three years. This work of the Society, deserves more than a passing re-mark upon its labors. It is exceeding creditable to the name of the Society, that a beginning has been made in this direction. None of the Scientific Institution of Europe, nor of the United States, nor any of the other enlighten nations of the World have attempted such a work , and it is this that the importance of the Work lies.

The numbers of the Scientific Branch of the Society are composed

entirely of Amateurs. His Majesty the King taking a leading part, and this year becomes the Presiding Officer of the Society and the Scientific Section, in the place of H.R.H. Princess Poomaikelani, the last incumbent. It appears by the report of the Secretary that H.R.H. Princess Poomaikelani last year, while connected with the Scientific Section of the Society, sent to the Liverpool Biological Society objects of her own collections, some of which specimens have been recognized as new to Ziology. The two Societies being in actual communication with each other are in that direction, assisting in knowledge of the Fauna of the Hawaiian Islands.

Among the Maps displayed and hung on the walls was a figure of the Earth cut latitudinally into two parts at the Equator, and another at 31 degree North Latitude, showing the deepest ocean and the highest mountain. Each parallel of latitude has been cut in a similar manner from 10 degree North of the Equator up to 83 1/2° North, and the same number of degree South of the Equator down to 73 1/2° South parallel the two furthermost points of the World where man has ever penetrated . The colouring and general aspects of these maps has been made to represent the different stratas of the Earth. The Geogical as well as the Geogonic periods. The weight of the Earth has been computed to be an approximate of 6,000,156,491,344,582,545,600 tons. This weight differs some what from that computed by Astronomical calculation by 156,491,344,582,545,600 tons less weight. The method adopted by the computation of the Society seems to be a different method than that of the Astronomical calculation, or in otherwise, as according to the Astronomical method it is assumed that the volume of the Sun exceeds the Earth 1,252,700 times to the mean density which is almost axactly onefourth of the Earth. And this mass exceeds her about 316,000 times. The gravity at the surface of the Sun exceeds terrestrial gravity about 27.1 times. the results are approximately the same. The computa-

tion of the Society is that of a square surface of 360,000 square miles of 600 mile of latitudinally measurement and the other runing logitudinally of 600 miles. Thence cutting downwards quadrangularly to the centre of the Earth. Including the Geologic and Geogonic periods. In this sectional manner the seas, oceans and mountains, have been calculated. In this particular Quadrangular Section of the Earth the weight is computed to be I,2I9,752,024,000,000 tons. The astronomical method being based upon general principles and not upon actual measurement as here shown. Therefore cannot this method as it seems to prove, be the correct one for the weight of the Earth at the present period. Starting from the weight of the Earth as a base, the number of years of duration and temperature of the Earth have been computed as follows:-

Duration as part of Sun and Comet,	4,325,522,992,II0 years.
Temperature of heat, ...	94,48I,000,000,000,000° degrees.
Duration as Nebular, ...	6,240,400,026,000 yrs-
Temperature of heat, ... *	I56,000,000,000° degrees.

* A most probable period when the Moon was expelled or saperated from the Earth.

Duration of Aquose period, ...	IO,4I0,472,728,455,350° yrs-
Temperature of heat, ...	770,099,522° degrees.
Duration of the Molten period, ...	20,825,000,000,000 yrs-
Temperature of heat, ...	99,000° degrees.
Duration of Crystalization period, *	23,724,924,765,000 yrs-
Temperature of heat, ...	522° degrees.

At this period the address reads- "The Elliptic, and hydrographic motions of the Earth became more and more contracted and the revolution of the Earth's orbitical movement around the Sun, became more and more regular, the process of cooling at the two extreme points, North and South, as alluded in the first part of this lecture, first took place." " The period when the Earth commenced to rotate, turn and revolve regularly upon its axis, and it is at this

~~rotate, turn and revolve regularly upon its axis, and it is at this~~

period, the North and South poles were established and fixed as we have it now at the present day. The temperature of heat falling and declining to 522° degrees."

The discourse continues- " during the existance of the Earth through its manifold phases as you will observe, First- as a Comet then the Nebular, the Aquose, the Molten and Crystalization periods, the Elements composing Molecular atoms must have changed considerably from one stage to that of another, and actually declining according to the variations and temperature of heat. A marked differential devolution and decomposition of Molecular atoms from one period to that of the other, from one stage of existance to that of the other and so on until the period of Concentration was reached. This epoch was marked with exceeding important changes of the character of our Earth. This was the ages when the Sun-light began and gradually dawned upon the Earth. The duration being computed to be 38,046,638,850,340 yrs- and the temperature falling to 240 degrees. Imagine the condition of the atmosphere that surrounded our Earth at this period. The clouds that we see hanging over our heads at that period was so thick and dense, at the distance of a half and one mile and compare this to the period we are speaking, at about 100 feet from us, a distance to 17- miles further above us, you could not see a clear place up in the skies as you perceive it now. I will give an illustration of the thick of the density of the vapors that surrounded our Earth. Take the height of Maunakea, the highest mountain we have on these Islands (Which is about 3 1/2 miles high, multiply that by 5 miles and you will have an approximate in height of what the vapors and atmospheric clouds of that period would be. No wonder it took such an extended period for the light of the Sun to penetrate and reach the Earth. The condensation of these vapors must have produced rain drops amounting to tuns, in other words equal to about 7 to 10 barrels of water. You can imagine then with such a weight of water falling from the distance of 15 to 17 miles high, would be tremendous. You can then form an idea how our deep ravines and valleys are formed, and how mountains are cut so sharp at their ridges? and how the rivers have been formed and how the debri have been in after periods, carried into the Oceans,

The Elements moving on towards devolution and disengagement of the atoms by the lowering by degrees, of the temperature of heat, in each duration and the period of the Earth's declination in substance and material, or in other words-" a preparation for Organic life." " This period and duration is computed to be 38,427,436,240 yrs- The temperature as you will see on this map has fallen to 200 and 190 degrees. This is the period at which we have assumed that organic life commenced upon the Earth." At the reduction of the degrees of temperature, we have ventured to explain the Molecular Elements were ready for for the precipitation of Chemical ingredients and affinities. The resultant of which is the production of potoplasmic or Bathostic substance. Hence the bases of organic and physical life."

" Many of you here tonight no doubt have an extreme repugnance and hate to spirits of any kind. Could you believe that this very substance of repugnance and hatred was the commencement of your very existance? This substance is nothing more nor less than spirits of wine (alcohal) mixed with salt-water. Hence protoplasm is the Chemical ingredient of sulphate of lime."

" Having established a data by which we can approximately determine a period when our life commenced on this Earth, based upon adequate composition of material and substance to build upon, we can finally determine and know the connection by which through inumerable ages of the past, how man have slowly but steadily have arrived at its present codition both physical and morally?"

"" If as we have asserted previously, the North and South poles were the two points of the Earth that first cooled off, Primative man must have originated near at these two extreme points. Notice the Australian in Australia, the Pategonian in South America, the Hottentot in Africa, and at the North the Laplanders and Esquimoxs. The barriers of ice and the frigid climate may have driven him further N North from the South, and further South from the North pole. These barriers of ice may be figuratively taken as the "guardian angels with flaming Swords," to watch man's first Paridise after his transgration. Moving to more genial climes as the severity of the climate effects this physical condition. The area at these two extreme points must have been large enough for the propergation of animal specie, as proofs of Mastadons have been found at Australia in the South and Siberia in the North. The distance of migration from these two extreme points has been extremely gradual and slow. Singularly enough the Marsupialian animals are still to be found at the South in Australia its primative home with that of man. His evolutionary step have taken him from these two points verging to the centre, and his devolutionary movement is taking place by his movements towards the two extreme points, from whence he came. We shall again upon this movement and migration of man at another place of this address.

As we have said something about our Earth it would not be out of

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As we have said something about our Earth it would not be out of

~~place~~, if we explain to you to night something about our Sun. What our ancient Hawaiian ancestors know of our Earth, Sun, Moon and Stars were very crude What they knew of the Earth and the Sun was that of the Earth as Kumulipo and Sun were the representives of a god Kaor La, to which numbers of their prayers were offered as the giver of life and every benefits for human existance. They had no ideas that this Sun was the mighty agent which keeps us year after year, moving continual around it and what makes us move from (2) East to (1) West, day by day on its axist until the annual orbitical motion of the Earth around the Sun is completed."

"They considered, as recited in the Mele of Kumulipo, that the Earth was at one time only a gigantic place of fire, flying in Space, and in other places it is mentioned as the slimy gelitine food of Makalii. (Makalii is the name of the planet = Mars.) It mentions of only one Geogonic period and the rest to 8, Geological periods. Each period being classified up to the generation of man."

It is strange that nearly all the Polynesian Islands Groups have as near as I can find out identically the same beliefs.

"Our ancient people and ancient peoples of other countries had just about the same notions and ideas of our Earth. They and we had a system of Astrology which their people have happily turned into Astronomy. And it is to this Science we are indebted to all the knowledge we have of our Sun. The spectrum has reveal to us that the substances of iron, manganese, zinc, cobalt, titanium, calcium, chromium, nickel tunsgsten, copper, platinum, Barium, Hydrogen Sodium, Alumium, Strontium, Lead, Cadmium, Cerium, Uranium, Potassium, Vanadium, Palladium, Molybdenum, Indium, Rubidiuma, Caesium, Bismuth, Tin, Silver, Glucium, Lanthanum, Yttrium or Erbium, and other metalic substance and salts which are supposed to be still in its gasseous and fusion state, devoluting and decomposing, similar in every respect to what the Earth has under gone and as the Sun is passing through now. She too, has passed her Comet, Nebular and Aquose period and is now in her Molten state. She is gradually cooling and passing into her crystalization period, which ac-

counts for her Chromosperic atmosphere that surrounds her, mostly composed of hydrogen and visible at times when certain atmospheric waves is inactivity. The Corona outside of this atmospheric current is another phenomenon enveloping the Sun with vaporus gasses extremely long independent of the other, and still another gassous vapors seems to cover the last. Out of these different atmospheres the constituent parts consist essentially of the vapors of the Chemical elements recognised on the Earth. Where the photosphenic atmosphere exist the temperature is so high that the Chemical elements are dissociated into fine forms of matter, so that the descending vapors get more simple and the ascending vapors get more complex. So that in the colder regions of the atmosphere, the vapors resembles those of our terrestrial elements, where or the Corona, these vapors gives place to solid particles and masses."

"We have now explained by the knowledge, by aid of the spectroscope as near as we know of the materials and elements that compose our Sun, we can say that the Sun is in a transition state between Molten and Crystalization. She can be seen by the naked eyes as a round Ball though still firery, but have assumed the physical features of our Earth, as it was in that state and codition. The Moon, the planets of our Solar system as well as that of the fixed star or suns far beyond the bounds of our Sun. are now undergoing the same exactly operations and process of devolution and decomposition of Nature, as that of our Sun. greatly and greatly and furtherand firery of matter

"For an ocular demonstration of facts, we have only to look around us and what do we see ? Punch Bowl Hill, not a half a mile from us, was once animated with Molecular life. Is not only that, but Diamond Head, Koko Head and several others promanent land marks we see around us. But what is it now ? A heap representing a dead mass of these very elements that was once akin to that of the Sun ? We may travel a little further, say to Kilauea on the Island of Hawaii, the largest active Volcano in the World. What will we find ? The same material

to that of the Sun, only in a lesser degree of heat to that of its parent. We may probe the Earth for some hundreds and thousands of miles deeper, and you will find in the centre of the Earth the same material that gave our Earth its birth at the very first commencement." (See next page however)

(Enter this after page 8c *) (See also page 10)

Here we are confronted with an exceedingly interesting subject for investigation by science. First- we lead to believe that a probable approximate Estimate of the weight of our Earth, has been for once correctly calculated upon, and accurately determined. Second- The probable time when our Moon saperated from our Earth. Thirdly- the period when the Earth began to turn upon its axis, and Fourthly- the establishment of the North and South poles. Fifthly- the Sun's light upon the Earth, and Sixthly- the designation of a period when organic life commenced upon our Earth. Surely this subject cannot be taken and treated as merely conjectural when backed by calculation. It shows extreme penetration of thought and mind. A subject and science that puzzled the greatest sages, philosphers and savants of Europe, Asia, Africa and America for ages and ages. And that here on a group of Islands in the midst of the Pacific Ocean, a Race of people not half broken into civilization, only having merged from Barbarism fifty years ago, should reach so high in Pyschological reasoning, acumen and able to pave the way and open a path of investigation some of the subjects new to science, is not to be looked upon with indifference and with mere curiosity, more especially and the more creditable when we consider that the members composing the Scientific Section of the Society are all amateurs and none has even had a collegiate Education less so a scientific training.

It is evidently a weighty subject and that there is food for reflection and though as crude as the subject may appear in the argument used, any ordinary mind can see at a glance by the maps presented a solution of some very weighty and knotty questions. A good many of our old ideas and notions of the Earth will have to be altered,

so clear are the theory presented and arguments perfectly admissible. If so, the crowning effort of the Society will be the Establishment of a new and distinct science. Where an outline here is only given- the future development of the process of the Earth's devolution and decomposition in material and construction should be better known- and understood. The lecturer continues- (Enter this in page 5.) " Our Earth, as we have previously remarked have formed and passed from the stages of molecular atoms precisely the same in matter, substance and atoms of our Sun. From that state, the devolution and decomposition passing successively into disintregation of the atoms have gradually moved upon the plan, not of ascendency, but of descendency. Not of progession, but of retrogation. Not of evolution, but of devolution. Not of life, but of deterigation and decay."

" It has been the invariable custom of modern science to use and express the term Evolution as a common interpretation of the term of Natures, general process of advance, growth and progressive modification of species in organic and physical life. In this respect and aspect and from that stand-point and view appears to be so, but when we consider that organic and physical life is but an infintisimal part of a great and general plan of Nature's mechanical laws, the application and appropriation of the term is evidently superfluous and a positive trespass upon the domain of the truth. The meaning of Evolution then, in general, from that of a lower standard to that of a higher, is a misnomer. and it seems that The term Devolution is more appropriate, I will repeat as is here used, instead of a progressive movement upwards and onwards, it is here used moving on a decline or downward tendency, from a higher state of fusion of elements to that of a lower one. From a high state of degree of temperature of heat to that of a lower degree of temperature. As it was that the molecular Element has been known in a high degree of temperature gradually declining as it were by degrees from this condition to that of organic molecular life

and so on, to the descent in man. Evolution then is only a transition state of a temporary progression. A brief energy and activity of molecular life. Only a short duration to allow the dissolution of atoms, and then decline and die. To assume again in a dissociated form that molecular element that once gave it life. We are apt to consider that our present existance, both physically and morally we have arrived to the ne-plus-ultra of perfectness. But in reality it is to the contrary. The commencement of organic life is but a continuation in succession and decline of atoms of former molecular life. And if the Cosmographic history of organic life have been properly tabulated, the preponderance of evidence will surely turn the scale in favor of devolution. The mulipication of evidence is simply needless. Only take the thickness and the average depth of the Earth's crust of 75 miles of the Geologic debri, devolution and decomposition of matter will invariably be the means and rule of solving the problem of the World's decay."

"Take even ourselves and our physical nature, and look back to the days of our ancestors, though man in his physical nature have been content to live under influences particular fitted to its existance from stage to stage, from age to age and period to period, he is evidently a very different being, physically and mentally from whence he first came into existance. Still the very elements of his individuality and his productive nature is apparently the same in substance."

"Struggling as he has for existance from that of an organic protoplastic molecule, the process of his physical development have been extremely slow. The tables in periods, we will give you this evening is an illustration of this fact."

"Here we have annexed a tabulated form of periods and events to this lecture, giving the Epochs of the Earth in years, the mean temperature in degrees, from its genesis to the present Era, and a poss-

= ible millenium.

GENESIS AND END OF THE EARTH.

Mean Temperature in degrees.	Periods in Years.	Explanations of Events.	Epoch.
9443I000000000°	9,522,992,110 43295229[illegible]I0	Gasseous matter from the Sun or... Comet.	Geogonic Ages.
I56000000000°	6240400026000	Gasseous expelled from the Earth, Moon..Nebular.	
776000[illegible]°	90,522 I0472728462350	Condensation of gasseous matter... Aquose.	
[illegible]°	99,000 20825000000000	Condensation into Molten mass... Molten.	
522°	25724924750000	Crystalization of the Earth..Crystalization.	
240°	38042638856340	Establishment of the North and South poles.	
200°	38427425436240	Suns light upon the Earth	Azoic Ages.
I90°	89200456328I00	Concentration Protoplasmic molecule.	
I80°	45054207I20000 72I2I654200000 73000000760624 74000000I20300	..... Mollusk. ..... Fishes.	Paleozoic Ages.
I70°	75650554400000 76820000000000 I70234786I53I38	..... Reptilian.	Mesozoic Ages
I60°	34443000030420 3457I2I05000000 4I0864III00I002	.....Birds.	
I50°	4502II336425000 4002620I2640I60 4023000000670000	..... Animals.	Cenozoic Ages.
460°	43237835000013 460444650070000	..... Mamalia. .....,, Marsupial.	Physcozoic Ages
50°	490000000000000 72000000000	..... Antropoid man. .....Primative man.	
	[illegible]000	..... Antideluvian man. or Adamic age	
	4[illegible]3I0	..... Noaharchian man.	
	I889	..... Christian Era.	
I0° Zero.	4.591.060.337.722.199 45000000000000000	approximate Age of the World. ..... Millenium or the	

End of all organic and physical life upon the face of the Earth."

"At this end of the Career of the Earth, she will still cotinue to follow her rotative motion around the Sun, in a similar way our Moon is still performing her course of revolution around our Earth."

"When we consider the enormity of the power of the heat of the Sun, we might as well perhaps explain to you of another influence, coherent with the subject of heat and that is the law of Gravity.

This law of Gravity, by which we are attracted to the Sun we first know to Sir Isaac Newton, and more properly defined by Kepler. As our Solar system is composed principally of movable planets, moving regularly around our Sun, you can understand what a weighty duty she is performing, not only to our Earth, as a plant, but also to other Earths and Plants, amounting to about 26 in number. By the power of heat she gives light to all of us including our Moon and their moons about 18 in number. And when you consider the extent of this power- what can you think of other Systems far beyond ours ? The law of gravity is what holds or attracts us all to the Sun, and our Sun in turn is attracted to us, (in a certain degree as I will hereafter explain,) and the planets of our Solar systems and then again our Sun and our Solar systems is attracted to other Solar systems far beyond ours. = No wonder why the Sages have philosiphized upon her divinity = = even identifing her to the Supreme Being!

"In all bodies there is always a certain amount of attraction of one body to that of the other. According to the sizing of the larger the smaller will surely be attracted to it. The causes principally assigned to two influences, one is the magnet and the other is the iron, these bodies contain. To illustrate this, you will only have to notice the action of the magnet upon a piece of iron and the attraction is the result. Now, let is call the Earth the gravitative attraction and the Sun the Magnetic attraction. Our Sun though I have said is possibly in her Molten state, would hardly reached her Crystalization

period. Her magnitude is so great and the heat is so powerful, that no conception, can be adequately given, as to the power of its heat. Our figures can only represents this measurement in power, by approximation, but in reality, our Earths laboratory experimental appuratus is deffecient in this respects. The present heat of the Sun is computed to be 80,712,800,000,000,000,000,000° degrees- Farnheit."*

Her age up to this molten State may be taken to an approximate 1.575.049.910.203.126.000.000. years

"The Earth being the Smaller, it only contains a millionth part of the intensity of the attraction of the magnet force which is the Sun. Now for the purpose of comparison, we will take the Planet Jupiter the largest of our ~~Solar system and place her as the Earth~~ at the distance she is in, and her gravitative attraction will only contain a millionth part of that of ~~the Sun~~, the magnetic attraction. Take this millionth part of the attraction of gravity of Jupiter, and then bring the rest of the Planets, Neptune, Uranus, Saturn, the Planetoids, Mars, the Earth, Venus, Murcury at their respective distances and added to these their Sattalites, and the whole is like a unit the power being equally distributed, put them all together, and their combination is only equal to the approximate of one millionth part of the gravitative attraction to that of the Magnet attraction, which is the Sun."

"Some of you will say, why, if the Earth's attraction is that much smaller to that of the Sun, the Earth will bolt right into the Sun? Certainly it will. If We consider ~~that~~ the reservation of power still retained of the Magnetic attraction and the enormous force and power of the repulsive wave energy of heat exerting and you can have some idea of the causes of the force of our Earth's revolution around the Sun which is equal to four times the velocity of a Cannon Ball shot out of a gun, per second. Imagine this and compare it to the Countless millions in space of other Solar systems similar to that of ours and the whole Universe is simply enormous."

" We must consider with this subject the weight of the Earth as a body, adding to it, the repulsive heat wave of the Sun, the tendency of which would be a downward and detractive gravity of the Earth. And aided by her hodograpic motion compels the Earth to fly off in the opposite direction [illegible] to the Attractive influence

*Deduct the Earths age as an approximate to 4.571.000.337.702.019 and the balance in favor of the Suns age will be 1.575.045.368.142.788.297.981. Equal to only one millionth part of the age of the Sun so she is only supposed to be in her Molten States

this gravity being modified & less that of the magnetic gravity, which neutralizes the effect & enables the Earth to perform her elliptic motion around the Sun. But, when you come to analyse and search the central causes of the effects and combination of these forces, gravity, repulsive wave energy of heat, magnetism one would be surprise to find that the principal agent and first cause, is in the kenetic energy of heat, the Molecule. A material substance and material that can be weighed, measured and calculated with mathematical exactness." (Enter here page 8-A page 8-B and page 8-C) (after this, & later page 5 * three next to

(Enter this paragraph in page 10. See asterics *)

This is a new departure in science and very bold attempt on the part of the Society, to confront and challenge the Scientific World in this respect.

The lecturer continues his address with the following remarks.

"I will here introduce a matter I should have explained at first, though I have on another occasion used as well as the evening, the substance and matter of Molecule. I shall only generize it in the sense of how matter and substance our World and other worlds like ours, came to its Existance. Molecules are composed of atoms infinitisimally small that they cannot be seen with the naked eye. The air we breath, the water we drink, the food we eat, the warmth and cold we feel are all substances with which our organic life is immediately connected. It is made up of parts each of which is capable of motion and action consistent with the principle of the conversation of Energy. What is commonly known as heat in this respect is the gaseous and Chemical Molecule aspect due to certain known laws governing particles and regulating Atomic substances and bodies."

"In the investigation of this worthy and important study one cannot help being reminded of a great lesson. However we srink from the idea or whatever may be repugment to our faith or belief we are costantly coming in contact with the material and matter in our daily walk of life, the conscientiousness of our very existance, but how, when and where we have obtained it we [illegible]

us, this cosciousness is ever present and most commonly though we do not perceive it but feel the sensation of the air we breathe. Invisible though it be, it is nevertheless the Essential material by which we exist and by which organic life was made manifest at the Genesis of our Earth."

"Differing only in that temperature of heat or Atomic Molecular energy of matter as suited to the distribution of Natures economic methods of material and variation in time and duratiom. Distant and far though it seems to appear in the spac^e of the past, still the chain is unbroken. Links have been riverted from one period to that of the other. One life disappears, another assumes its sway and so on, will it continue untill we reach a period where organic life will ultimately perish, and the molecular atoms assumes its inorganic form again. The sands and shells of the shores, the Earth, the dust, the decayed trees were all once animated with life. The Moon may be taken as a fair sample. Organic life having departed ages and ages ago, retaining only a dead mass of fosils and remains of once active molecule."

"Comparing the size and age of the Moon with that of the Earth's organic life upon the Moon, would only have^ reached the Earth's Devonian period or the age of the fish when life became extinct. She is simply now. A bleak extinct volcanic mass of inorganic fosils remains of the Paleozoic period. Her animal life not even reaching the Mesozoic or Reptile age. Man therefore could not have existed at all or at any time upon the Moon. For in the birth, evolution and development of animal specie, life could not have been maintained and Continued so intensely cold she must have been during the Cycle of years computed for her duration, until the entire time of colapse of organic life."

once in this direction we are gratified that we have now this evening given it you all gratuitously ? (Enter here the paragraph marked asterics ## in page 8.) of page 5 and also the other paragraph

His Majesty and the Hale Naua are to be congratulated upon the presentation of this science and needs good encouragement. Nothing could have represented the Nation better than this work to the Paris Exposition. At the conclusion of the Lecture the Society retired in procession in the same manner as they came. After the ceremony was over, a dance was given to the invited guests, which was of most enjoyable one to those present.

The guests present were H.R.H. Princess Liliuokalani, Hon.J.O.Dominis, H.R.H. Prince David Kawananakoa, Mr.J.W.Robertson H.M's Acting-Chamberlain and Mrs.Robertson, His Excellency Geo.W.Merril U.S.A. Min Resident, and Mrs.Merril, Mrs. Wodehouse wife of H.B.M's Commissioner and Consul General, Mons- G.B. d' Anglade, Commissioner for France, Mons-Leon Bellazuet, Chancellor of French Legation, J.H.Putnam U.S. Consul General & Miss Putnam, F.P.Hastings U.S. Vice & Deputy Consul General & Mrs. Hastings, Mr.T.P.Walker, H.B.M's Vice Consul & Mrs. Walker, Mr & Mrs. Robert Loino Stevenson, Mrs. I. Stevenson, Mr: Slog Asborne, Mr & Mrs. J.D. Strong Hon. J.S. Walker & Mrs. Walker, Mr. C Afong, Hon. & Mrs. J.I. Dowsett, Hon & Mrs. Antone Rosa, Mrs. Chapman, Mr & Mrs. L.J. Levey, Mrs. S.J. Levey, Mrs. kumann, Mrs.J.A.Cummins, Rev. & Mrs. Mackintosh, Mr & Mrs. Malcolm Brown, Mr & Mrs.N. Gedge, Mr & Mrs. W.H.Aldrich, Mrs. J.H. Brown, Capt- & Mrs. Tripp, Major J.D. Holt jr, and Major H.F. Bertlemann of H.M's Staff, Mr & Mrs. G.E. Boardman, Mr. Geo C. Beckley, Misses Amy & Esther Wodehouse Nina Green, Edith Mist, Dora & Sortsey Dowsett, Mano Von Holt, May Adninne Dudoit, May McBuyde, N Barnard, Panah Judd, Annie Cleghorn, Ladd N. Brown White, Afong, Walker Mersbergh, Rosie Makee, Lizzie Co-

ney & Arkinson, Mersses E. Dowsett, C. Widemann, Geo E. Smithies, E. Styles, C.H. Judd jr, J.Coville, H. Tacke, H.F. Poor, T.B. Stocke E.D. Tenney, Tommy Cummins, Capt- C.S. Oxley, H.B.M's Conquest, Capt- Ackland H.B.M's Hyacinth, Commander J.E.T. Nicolls H.B.M's Commorant, Capt- C.N. Schoomaker U.S.S. Vandalia, Commander Jos E. Green U.S.S. Alert, and Officers of the several vessels.

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