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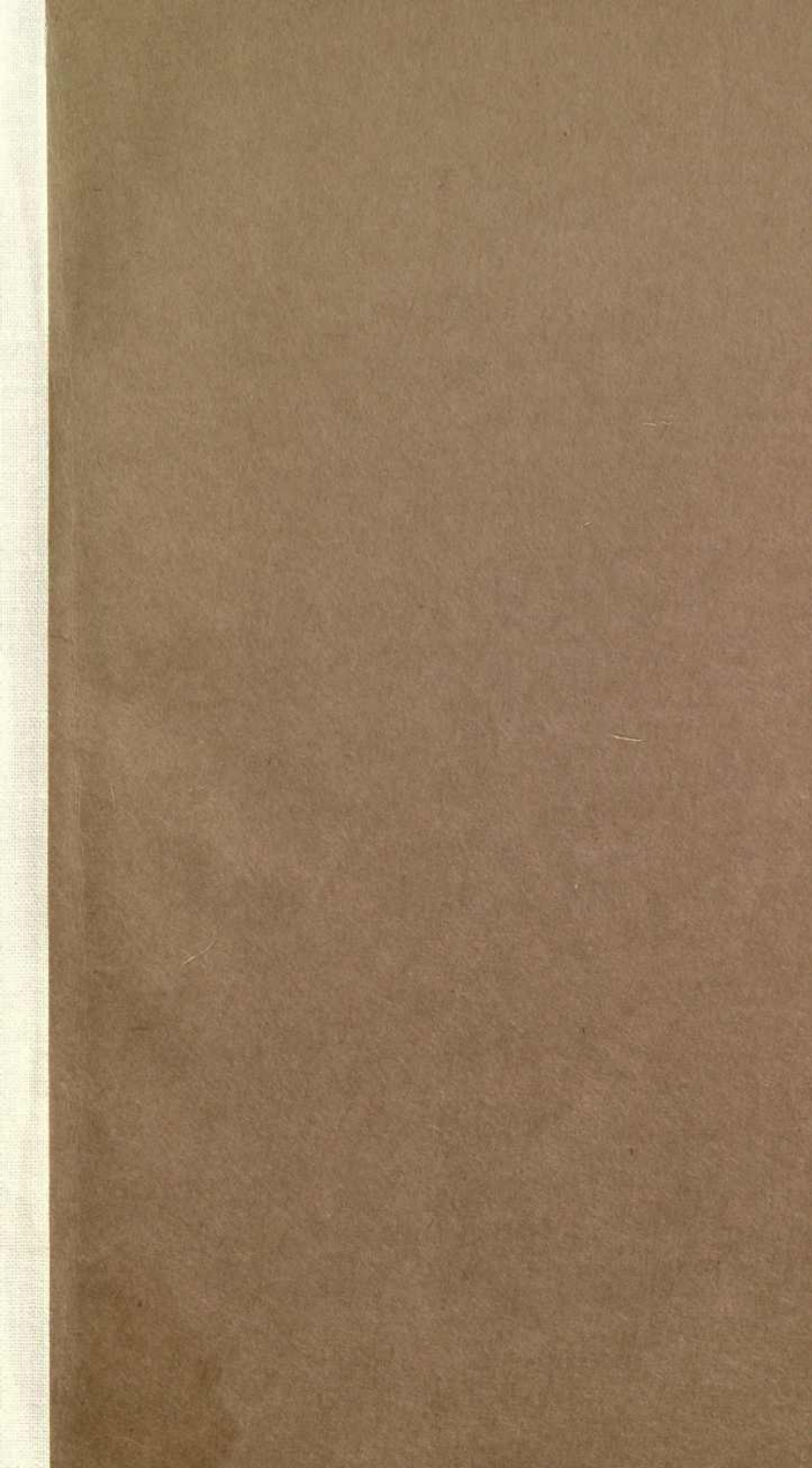


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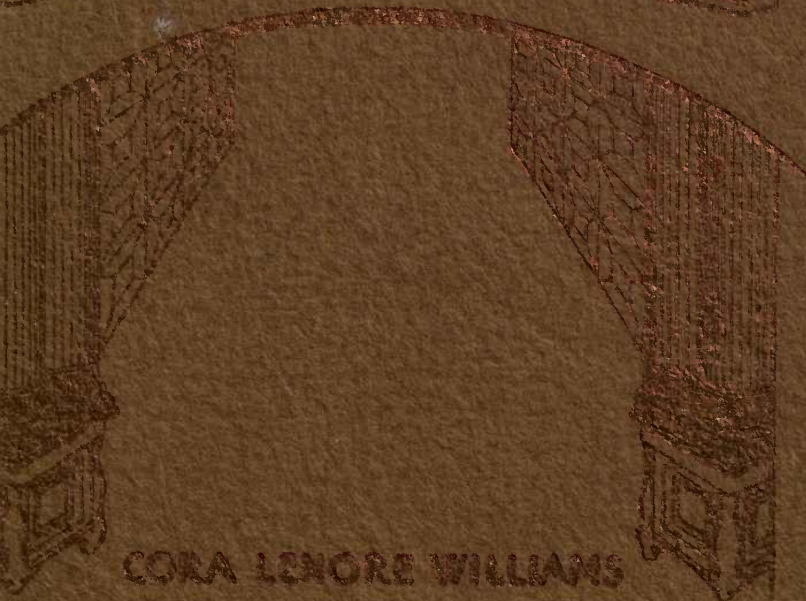
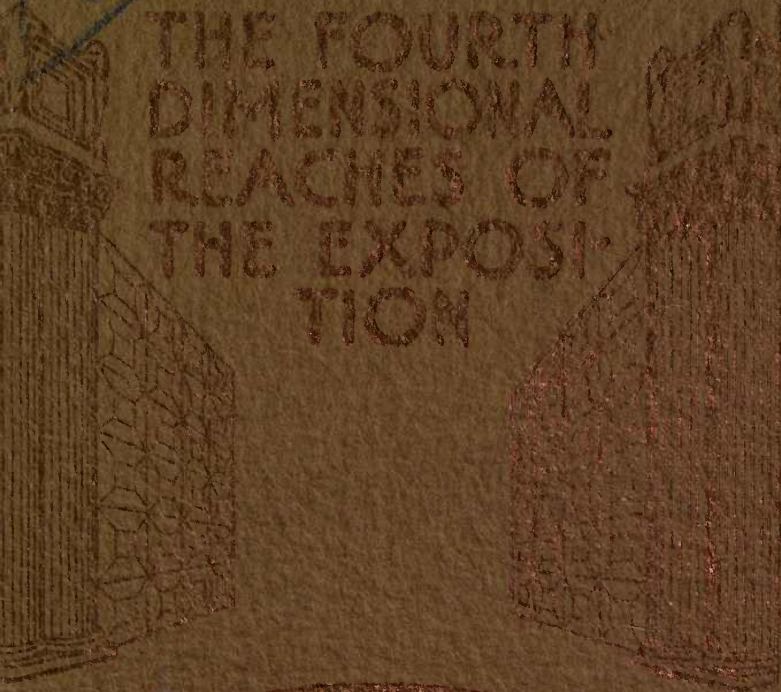
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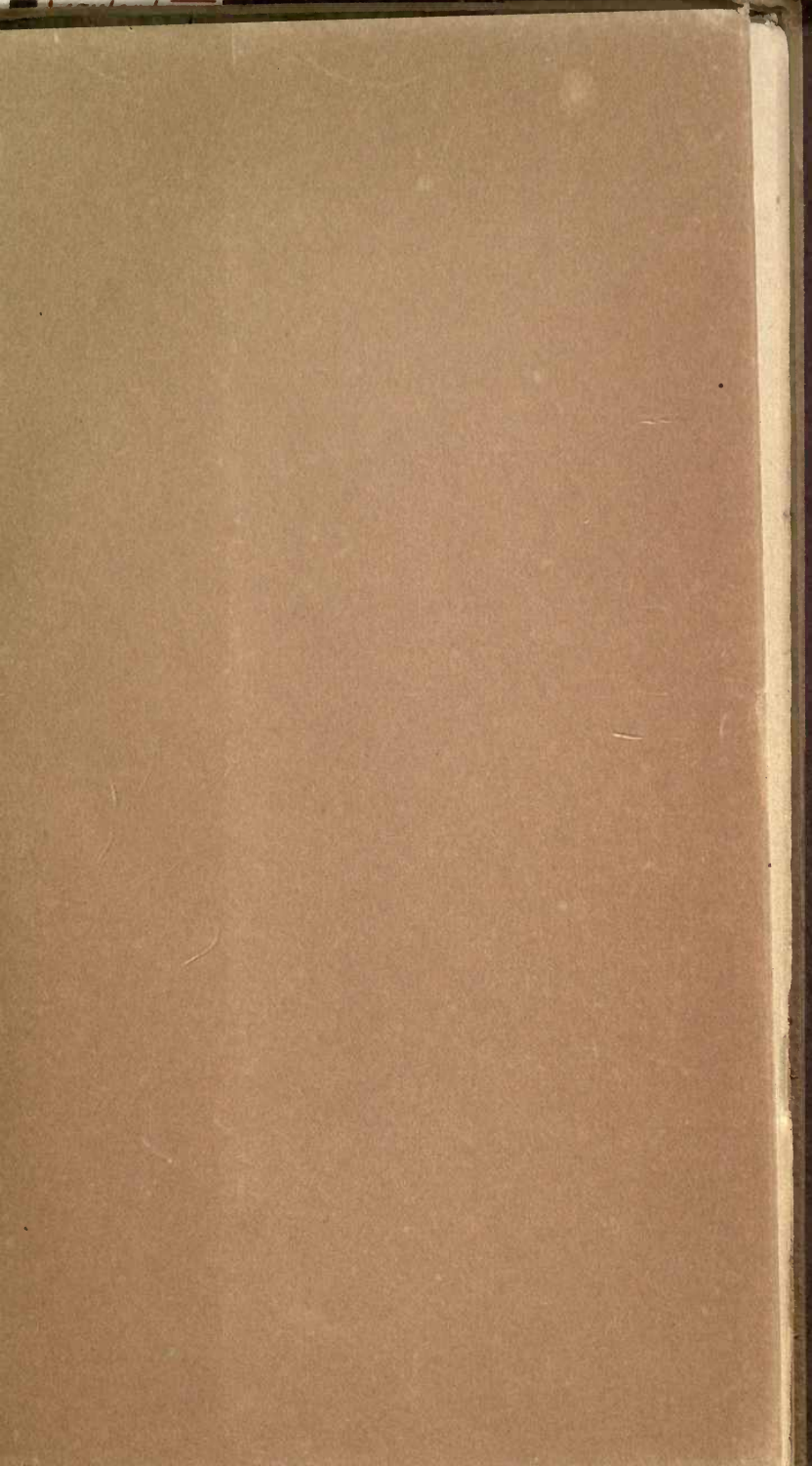


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THE FOURTH
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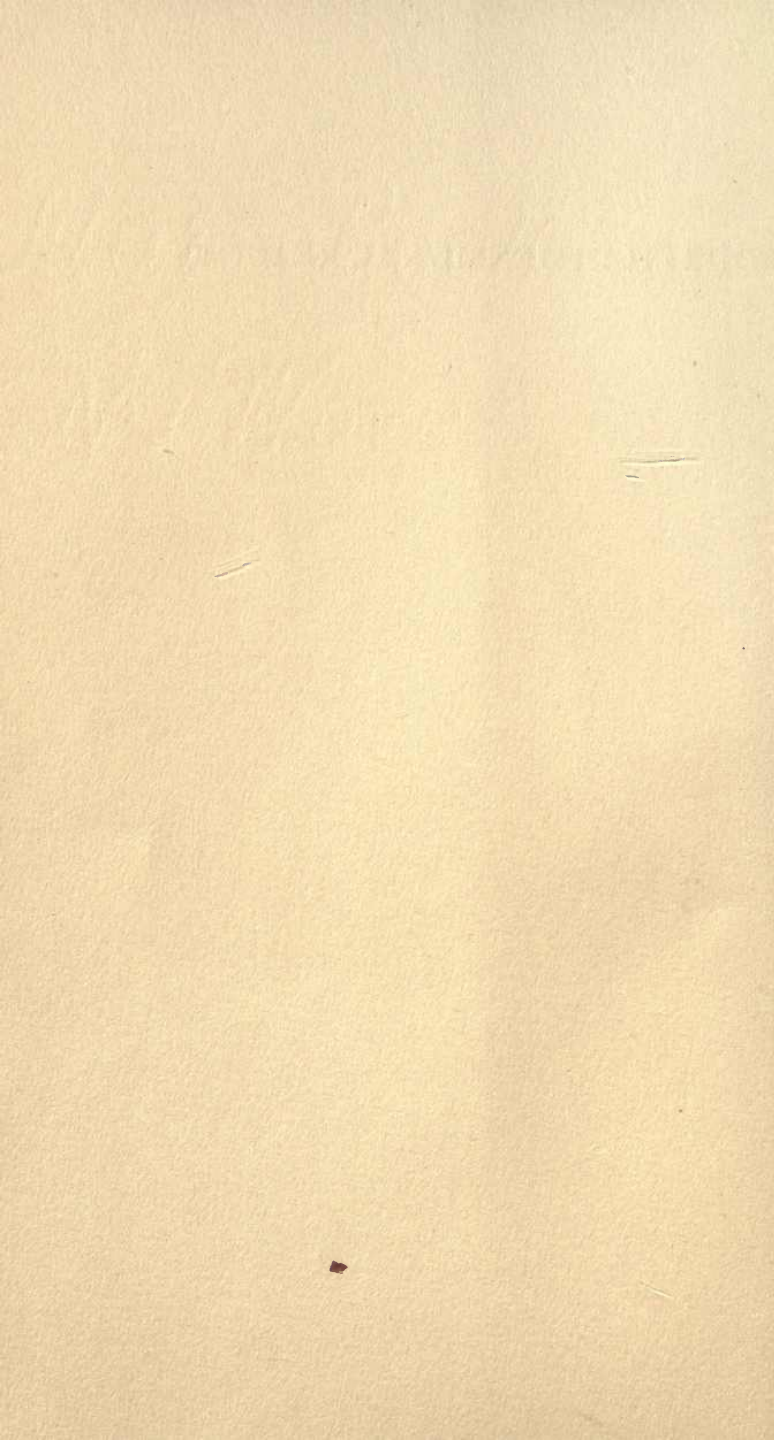


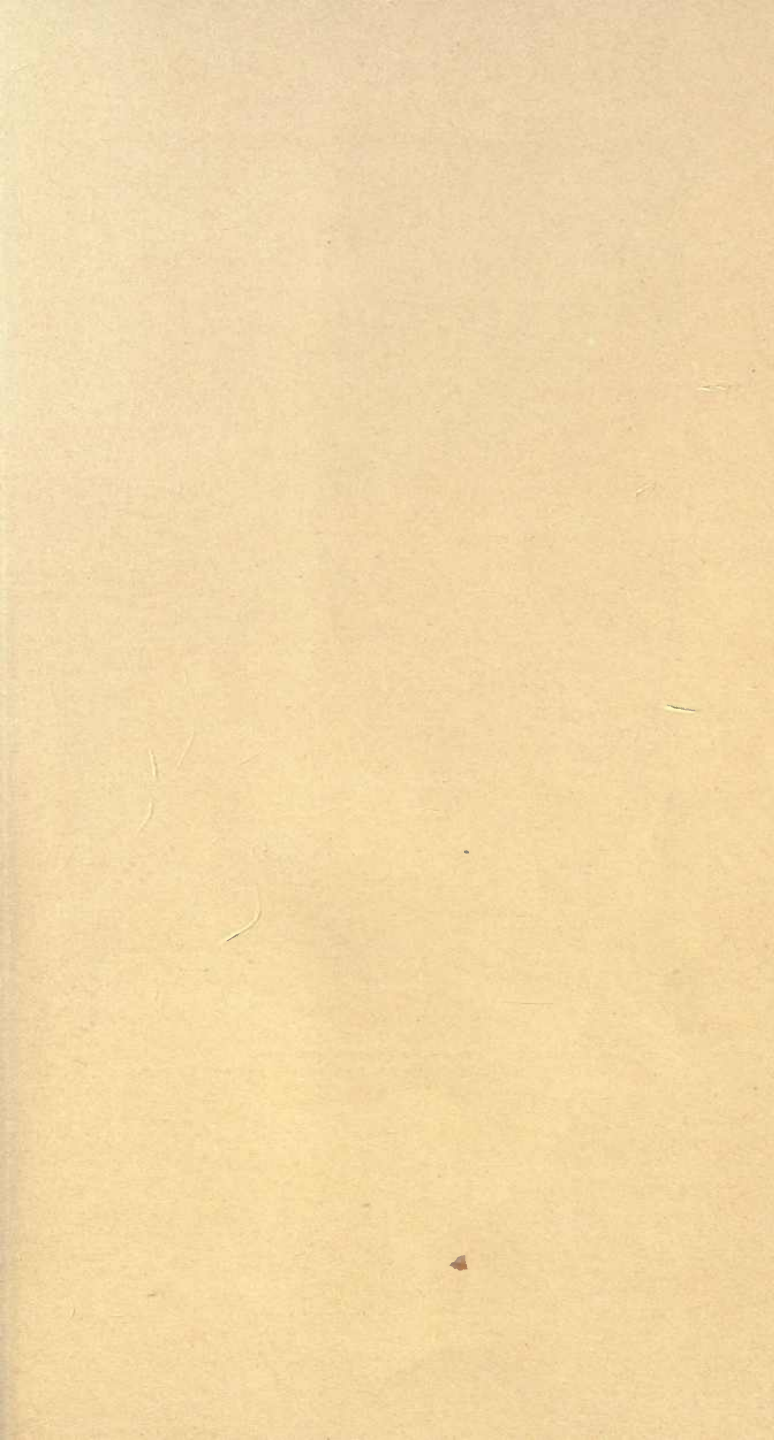
CORA LENORE WILLIAMS





FOURTH-DIMENSIONAL REACHES







AN UNBORN SPACE
THE COURT OF FOUR SEASONS
From an etching by Gertrude Parrington

*Time is, and all the detail of the world confounds
The plastic mind. With multitude of shapes and
sounds*

*Do the swift elements of thought contend
To form a whole which life may comprehend.*

Only to those of high intent

Is life revealed, and quick dreams sent—

Half glimpséd truths omnipotent.

Out of the silence of an unborn space

A spirit moves, and thought comes face to face

With the immutable, and time is past,

And the spent soul, alone, meets truth at last.

Chance, fate, occasion, circumstance,

In interfuséd radiance

Are lost. Past, present, future, all combined

In one sure instantaneous grasp of mind,

And all infinity unrolls at our command,

And beast and man and God unite, as worlds expand.

—Ormeida Curtis Harrison.

Time is, and all the detail of the world beyond
 The plastic mind. With multitude of shapes and
 words
 Do the soft elements of thought contend
 To form a whole which life may comprehend
 Only to those of high intent
 Is life revealed, and with desire seen—
 Half glimpsed, half hidden
 Out of the silence of an unborn space
 A spirit moves, and thought comes face to face
 With the immovable, and time is past,
 And the spent soul, alone, meets truth at last.
 Chance, for occasion, circumstance,
 In interlarded cadence
 The lost. Past, present, future, all combined
 In one vast instantaneous grasp of mind,
 And all infinite unrolls at our command,
 And bears and man and God with, as worlds expand.
 —Orinda Curtis Harrison.

AN UNKNOWN SPACE
 THE COURT OF FOUR SEASONS
 From an sketch by Gertrude Farrington

THE
FOURTH-DIMENSIONAL
REACHES OF THE
EXPOSITION

SAN FRANCISCO, 1915

By CORA LENORE WILLIAMS, M. S.

AUTHOR OF

"AS IF" and ESSAYS ON "INVOLUTION"



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CONTENTS

	PAGE
Lines on "Fourth-Dimensional Insight" by Ormeida <i>Curtis Harrison. (Tissue Facing Frontispiece.)</i>	
A Fourteenth Century Legend	VII
Essay on the Fourth-Dimensional Reaches of the Exposition. <i>By Cora Lenore Williams:</i>	
General Status of the Fourth-Dimensional Theory	I
Fourth-Dimensional Aspects of the Panama-Pa- cific International Exposition	9
Bibliography: Books and Poems having Fourth-Di- mensional Insight	18

ILLUSTRATIONS

	FACING PAGE
An Unborn Space. The Court of Four Seasons. <i>From an etching by Gertrude Partington (Frontispiece)</i>	
A Structure Brave. Palace of Fine Arts. <i>From an etching by Gertrude Partington</i>	4
A Building Inside Out. The Court of Ages. <i>From an etching by Gertrude Partington</i>	14
A Four-Dimensional Cover Design. <i>By Julia Man- chester Mackie. (Cover.)</i>	

A FOURTEENTH CENTURY LEGEND

FRIAR BACON, reading one day of the many conquests of England, bethought himself how he might keep it hereafter from the like conquests and so make himself famous to all posterity. This (after great study) he found could be no way so well done as one; which was to make a head of brass, and if he could make this head to speak (and hear it when it spoke) then might he be able to wall all England about with brass. To this purpose he got one Friar Bungey to assist him, who was a great scholar and magician (but not to be compared to Friar Bacon); these two with great study and pains so formed a head of brass that in the inward parts thereof there was all things like as in a natural man's head. This being done they were as far from perfection of the work as they were before, for they knew not how to give those parts that they had made motion, without which it was impossible that it should speak. Many books they read, but yet could not find out any hope of what they sought, that at the last they concluded to raise a spirit and to know of him that which they could not attain by their own studies.

A FOURTEENTH CENTURY LEGEND

The spirit straight obeyed, and appeared unto them, asking what they would. He told them that with a continual fume of the six hottest simples it should have motion, and in one month space speak: the time of the month or the day he knew not. Also he told them that if they heard it not before it had done speaking, all their labor should be lost.

Then went these two learned Friars home again and prepared the simples ready and made the fume, and with continual watching attended when this Brazen Head should speak. Thus watched they for three weeks without any rest, so that they were so weary and sleepy that they could not any longer refrain from rest. Then called Friar Bacon his man Miles, and told him that it was not unknown to him what pains Friar Bungey and himself had taken for three weeks space only to make and to hear the Brazen Head speak, which if they did not, then had they lost all their labor, and all England had a great loss thereby. Therefore he entreated Miles that he would watch whilst that they slept and call them if the head spake. 'Fear not (good master), I will harken and attend upon the head and if it do chance to speak, I will call you; therefore, I pray take you both your rest and let me alone for watching this head.'

* * * *

A FOURTEENTH CENTURY LEGEND

At last, after some noise, the Head spake these two words: 'Time is.' Miles, hearing it to speak no more, thought his master would be angry if he waked him for that, and therefore he let them both sleep and began to mock the Head in this manner: 'Thou Brazen-faced Head, hath my master took all this pains about thee and now dost thou requite him with two words, "Time is"?"

* * * *

*After half an hour had past, the Head did speak again two words which were these: 'Time was.' Miles respected these words as little as he did the former and would not wake his master, but still scoffed at the Brazen Head, that it had learned no better words, and have had such a tutor as his master; * * * * "Time was!" I knew that, Brazen-face, without your telling. I knew Time was and I know what things there was when Time was, and if you speak no wiser, no master shall be waked for me.'*

* * * *

** * * * The Brazen Head spake again these words: 'Time is past'; and therewith fell down and presently followed a terrible noise, with strange flashes of fire, so that Miles was half dead with fear. At this noise the two Friars waked and wondered to see the whole room so full of smoke, but that being vanished, they might perceive the Brazen*

A FOURTEENTH CENTURY LEGEND

Head broken and lying on the ground. At this sight they grieved, and called Miles to know how this came. Miles, half dead with fear, said that it fell down of itself and that with the noise and fire that followed he was almost frightened out of his wits. Friar Bacon asked him if it did not speak.

'Yes,' quoth Miles, 'it spake, but to no purpose.'

GENERAL STATUS OF THE FOURTH-DIMENSIONAL THEORY

THE human mind has so long followed its early cow-paths through the wilderness of sense that great hardihood is required even to suggest that there may be other and better ways of traversing the empirical common. So it is that the fear of being proclaimed a Brazen-head has restrained me until this eleventh hour from telling of my discoveries concerning the fourth-dimensional reaches of our Exposition. That I have the courage now is due to my desire to help in its preservation; not to the end of enclosing it in a brass wall, but to lift it out of the realm of things temporal and give it permanent meaning for our thought and aspiration. Would we save our Exposition from the ravages of Time we have to exorcise that monster with the enigmatical utterances of the aforesaid Brazen Head. The philosophers are telling us that Time is the fourth dimension in the process of evolving for our consciousness. I take it that there are three stages in this evolution; the first, that of immediate ex-

perience, is subsumed by the phrase 'Time is'; the second is a passing from the concrete to the abstract through the fact that 'Time was'; and the glory of the last is visioned only when we can say 'Time is past.'

While many books have been written descriptive of the Exposition, none has succeeded in accounting completely for the joy we have in yonder miracle of beauty. And this through no fault of the writers. When all has been said concerning plan and execution there is still a subtle something not spatialized for consciousness. Length, breadth, and height do not suffice to set forth the ways of our delight in it. What of this perceptual residue? Obviously to give it extension we shall have to ascribe to reality other dimensions than those of our present sense-realm. Some disciple of Bergson interrupts: 'Ah, this whereof you speak is a spiritual thing and as such is given by the intuition. Why, then, do you seek to spatialize it?' And the layman out of his mental repugnance to things mathematical echoes, 'Why?' We have to answer that the process of creative evolution makes imperative the transfixion by the intellect of these so-called spiritual perceptions. Although the intuition transcends the intelligence in its

FOURTH DIMENSIONAL REACHES

grasp of beauty and truth, we may attain to the higher insight it has to offer only if the things of the spirit become known to the intellect—a point in Bergson's philosophy which the majority of his readers overlook. 'We have,' he says, 'to engender the categories of our thought; it is not enough that we determine what these are.' Bergson is preëminently the prophet of the higher space concept. We had done better to have held to Kant, for now we are not only confronted with the fourth dimension as a thought-form, but with the duty as well of furthering its creation. And in that light we have to regard what of worth and meaning the Exposition has for us.

Although the scientist has found it useful on occasion to postulate the fourth dimension, he has not thought necessary as yet to put it in the category of reality; much less has the layman. Consequently the mathematician holds the sole title to its knowledge unless we recognize the claims of the medium to a fourth-dimensional insight.

There is much, however, today which points to our coming to such perception as the natural result of our evolution and quite apart from geometrical abstractions or occultism. It is as though some great tidal wave had swept over space and we

have, quite unbeknown to ourselves, been lifted by it to new heights. And when we have once obtained our spiritual balance we shall doubtless find that our space-world has taken to itself another direction, inconceivable as that now seems.

Space is more than room wherein to move about; it is, first of all, the room in which we think, and upon how we do so depends the number of its dimensions. If the attention has become 'riveted to the object of its practical interest' to the extent that this is the only good the creature knows, then is its thought-form one-dimensional even though its bodily movements are three-spaced. The great Peacock Moth wings a sure course mateward to the mystification of the scientist; the dog finds the direct road home—his master cannot tell how; Mary Antin climbs to an education over difficulties apparently insurmountable; Rockefeller knows his goal and attains it, regardless of other moral worths. For these the way is certain. They can suffer no deflection since there are no relative values, no possible choices. Their purpose makes the road one-dimensional. That the majority of persons are still feeling their way over the surface of things is attested by the general mental ineptitude for the study of solid geometry. Depth and



A STRUCTURE BRAVE
PALACE OF FINE ARTS
From an etching by Gertrude Partington

FOURTH DIMENSIONAL REACHES

height play little part in our physical perception. For most of us the third dimension is practically unknown beyond the reach of a few feet. A Beachey soaring aloft—why all the bravado of curve and loop? Sooner or later he will fall to his death. Ay, verily! but his is a joyous martyrdom making for the evolution of consciousness. Not always shall we crawl like flies the surface of our globe!

While a man's space-world is limited by his thought, it is, on the other hand, as boundless as his thought. That the world evolves with our consciousness, is at once the philosophy of 'Creative Evolution' and of the higher space theory. Our present spatial milieu has settled down to a seemingly three dimensional finality because our thought-form has become so habitual as to give rise to certain geometric axioms. All we need in order to come to a fourth-dimensional consciousness, said Henri Poincare, 'the greatest of moderns,' is a new table of distribution; that is, a breaking up of old associations of ideas and the forming of new relations—a simple matter were it not for our mental inertia. Lester Ward speculates that life remained aquatic for the vast periods that paleontology would indicate; Cambrian, Silurian, Devonian,

Carboniferous—a duration greater than all subsequent time—for the reason that the creature had not progressed beyond the stage when it could move otherwise than in a straight line when actuated by desire for food or mate. Life was not able to maintain itself on land until it had overcome this one-dimensional limitation. A venturesome Pterodactyl was he who first essayed to make his way among the many obstructions to be found ashore! By what intuition was he impelled?

It is a matter of common observation that the growth of the higher perceptive faculty is strangely concomitant with adversity. The intuitive person is a person who has suffered. When conditions press sufficiently hard, a new table of distribution may be the only means for survival. Thus we proceed to make a virtue of necessity and so come to the recognition of other values which we denominate spiritual because we have not as yet spatialized them. The caterpillar has to mount the twig to find the tender green that is his food, but he solaces himself for the journey by thinking himself a creature of the light. Mr. Carpenter, in an interesting study of what he calls Intermediate Types, shows that the seers and spiritually-minded come to be such because they found themselves differ-

FOURTH DIMENSIONAL REACHES

ing in some wise from their fellows, and dwelling on that difference had their minds turned inward. Progress in thought and imagination naturally followed, with the result that these were lifted above the majority and came thereby to larger vision. Failure may well be the measure of extension in a new dimension.

The significance of the much fumbling and groping of earth's creatures is the desire for a larger outlook. Man has to feel his way out of a three-fold world even as the worm out of his hole. That we are hearing much of the principle of relativity is perhaps the best indication we have that the collective human consciousness is about to enter a higher dimension. So long as man knew only an absolute good was his world a definitely determined world. Now that the question of relative values obtrudes itself on every side the range of consciousness promises to be infinite.

Man's interest having in these latter days become largely centered on value-judgments and estimates of worth, an exposition affords perhaps the most general application of the principle of relativity, bringing it home to the collective mind in an intimately human way as nothing else could. With nation vying

FOURTH DIMENSIONAL REACHES
with nation and individual with individual in all of the arts and crafts of human industry, absolute standards must needs vanish, and with their going we may be able to set up such a distribution of values as will give new direction to our efforts. However that may be, the industrial competition to which, in the last analysis, the Exposition owes its inception, is pushing many aside from the beaten highways into hitherto unexplored regions of thought and endeavor, and who is to say that we may not in consequence find a direction quite at right angles to all of our wonted ways of thinking. Certainly there could be no more fitting occasion for the launching of a new thought-form than a great international exposition.

THE FOURTH-DIMENSIONAL ASPECTS *of the* PANAMA-PACIFIC INTERNATIONAL EXPOSITION

*And I know not if, save in this, such gift be allowed
to man,*

*That out of three sounds he frame, not a fourth
sound, but a star.*

*Consider it well: each tone of our scale in itself is
naught:*

*It is everywhere in the world — loud, soft, and
all is said:*

*Give it to me to use! I mix it with two in my
thought:*

*And there! Ye have heard and seen: consider
and bow the head!*

—Browning.

THE Panama-Pacific International Exposition is best seen in its fourth-dimensional aspect when approached through the Gateway of Memory. This is what one might expect, for that entrance alone has the requisite geometrical structure. You will recall having heard, I am sure, how in the fourth dimension a person may go in and out of a locked room at his pleasure with bolts and bars untouched. Broad and open as is this Gate of Memory, when you pass its portals the wall closes behind you; there is no visible opening to mark

FOURTH DIMENSIONAL REACHES the spot of your entry. A feeling of detachment comes over you. This is augmented by the burst of light and color that flashes across the field of your vision, and for the first time you understand the purport of those 'banners yellow, glorious, golden' which 'do float and flow.' They seem to bear you on breezes of their own creating to the freedom of outer spaces. What you had taken for the flaunting of festivity are become the heralds of hyperspace.

As you wend your way down the Avenue of Time you feel an inexpressive lightness, a sensation of being lifted out of yourself. The moment seems unique. Things are unrelated. There is no concern of proportion. The place is one of immediacy. You wander from the ephemeral to the ephemeral. 'Time is,' you say, in childish glee. And you hasten to assemble images as many and as disparate as possible, believing that you are drinking life at its fountain head. The outer world presents itself to your consciousness in the form of facts in juxtaposition. You read guide-books and rejoice in the acquisition of knowledge. Gradually through the perception of the same phantasmagoria comes an at-oneness with your fellows. You are caught up in the swirl of a larger self.

FOURTH DIMENSIONAL REACHES

Soon you weary of the heterogeneous. The Zone of Consciousness stands revealed in all its grotesqueness. 'Time is,' you cry, but to give thought its impulse, and you hasten on if perchance you may discover the direction of the life-principle. What you had taken for reality is but its cross-section — so does this empirical realm stand to the higher world of your spirit, even as a plane to a solid.

Now you turn your attention from things to relations in the hope of getting at truth in the large. A passage in Plato comes vividly to your mind. 'For a man must have intelligence of universals, and be able to proceed from the many particulars of sense to one conception of reason;—this is the recollection of those things which our soul once saw while following God, when, regardless of that which we now call being, she raised her head up towards the true being.'

Henceforth the multiplicity that you seek is one of organization and has nothing to do with number. 'Time was,' you proclaim, that consciousness might sift out the irrelevant. As you pass from collection to collection individual fact becomes prolonged into general law and science dominates the field of thought. A thousand years are as a day when subsumed by its laws. You look at the

objects of man's creating with new eyes. The displays are no longer contests of laborious industry but of vision and faith. You see that truth has made itself manifest through the long repetition of the same fundamental theme. That which is unique and personal you are surprised to find of less value than the habit perfected by patient practice. The routine and monotony of daily toil become glorified in the light that now falls athwart your vision. You learn to substitute for your personal feeling the common impersonal element felt by the many. Your concern is not as formerly to recollect, but to symbolize. To this end you study frieze and statuary and frequent lectures. Your sense of social solidarity grows through mutual comprehension of the same truths.

And again that 'vexing, forward reaching sense of some more noble permanence' urges you on. 'Time was,' you joyously affirm for man to come to the knowledge of an eternal self. But that, your tradition and education have led you to believe, is still yonder, worlds away. And you image the soul in its quest passing from life to life as you are now passing from building to building, from hall to hall. But glad the thought—there will be courts wherein you may perhaps glimpse the plan of the whole

FOURTH DIMENSIONAL REACHES

and so gather strength and purpose for another housing. All at once you know that death has no fear for you and you feel toward your present life as you do toward these Palaces of the Mundane—the sooner compassed the better.

You pass from court to edifice and from edifice to court, marvelling at the symmetry of plan and structure. Unity, balance, and harmony become manifest as spatial properties—you had been taught to regard them as principles of art. You wonder if art itself may not be merely a matter of right placing—the adjustment of a thing to its environment. You are certain that this is so as each coign and niche offers you its particular insight. Strange vagaries float through your mind—one's duty to the inanimate things of one's possession; the house too large for the personality of the owner; the right setting for certain idiosyncracies; character building as a constructive process; the ideal as the limit of an infinite series—each pointing the way, as you think, to a different vista of human outlook. What then your glad surprise to find these converging toward one ideal synthesis. In anticipation of the splendor you hasten on till earth shall have attained to heaven. There it stands—'a structure brave,' the Palace of Art, the Temple of the Soul—

and you know you were made to be perfect too.

Now that you apprehend the plan of the whole, symmetry takes on a vital significance for your thought. You try to recall what you learned of it in geometry. There was a folding over, you remember, and a fitting together—'congruence' you believe it was called. But that could have no meaning for solids. Stop! a folding over? Why, that implies another dimension! The two halves of a leaf can be brought together only as one or the other is lifted out of the plane of the leaf into a third dimension. So to bring two buildings into superposition when they are alike except for a reverse order of parts, would necessitate a fourth dimension and a turning inside out. Quick as the thought, the court you are in is that—a building inside out!

Ah! you know now wherefor that wonderful uplifting sensation that comes whenever you enter one of these beautiful inclosures. You have passed into the fourth dimension of spatial realization. 'Time is past,' you shout aloud, and laugh to find yourself on the inside of externality. Cubism in architecture! Futurism, in very truth!

You visit again the galleries of the



A BUILDING INSIDE OUT
THE COURT OF AGES
From an etching by Gertrude Partington

FOURTH DIMENSIONAL REACHES

New Art, not to scoff, but in earnest desire for enlightenment as to this thing which is so near to consciousness and yet so far. You find yourself exclaiming:

‘Ah, there is something here
Unfathomed by the cynic’s sneer!’

As you gaze at the portrayal so strangely weird in form and color you ask yourself where have I felt that, seen this, before? Immediately you are transported in memory to the midst of a crowded street. In the mad bustle and noise you are conscious only of mechanical power; of speed—always of speed. Your voice far away—‘The child, oh, the child!’ A swooning sensation. Men’s faces as triangles and horses with countless legs. The chaos of primal forces about you—then darkness.

As the past fuses with the present you awaken to a larger privilege of life than man now knows. You feel yourself encompassed by truth, vital and strong. This art, erstwhile so baffling, stands revealed as the struggle of a superhuman entity for self-expression. The tendency toward God has to begin anew with each round of the life-spiral—that eternal circle which life pursues.

Now you find yourself in the Court of the Universe. Bands of many-colored

light, the white radiance of eternity, stream athwart the sky. The illumination is of the wonder that now is. How marvelously strange the sight of the world-consciousness passing over into a higher thought-form! Each individual element suffering reversal to take its proper place in the new world-order! You see positive becoming negative, negative becoming positive, and Evolution giving place to Involution—a process as yet uncomprehended by our narrow thought. And the secret of the world-struggle across the sea you know; men passing their nature's bound; new hopes and loyalties supplanting old ties and joys; the established creeds of right and wrong as they vanish in this unmeasurable thirst for an unknown good. All these things you know to be the travail of the world as it gives birth to some higher entity than individual man.

'Time is past,' and as you speak a dove settles to rest upon a pediment. Therewith you are carried away in the spirit to a great and high mountain and you behold a new heaven and a new earth; for the first heaven and the first earth are passed away. You see the holy city coming down out of heaven—her light is like unto a stone most precious, as it were a jasper stone, clear as crystal, and

FOURTH DIMENSIONAL REACHES

the walls thereof are adorned with all manner of precious stones—and they brought the glory and the honor of the nations into it.

CREATIVE EVOLUTION

(After Bergson)

*Out of a sense of immediacy
Comes an intuition of things forming.
Pressed up by the vital urge,
Mind meets matter and matter mind
In mutual understanding.
That which apprehends, since by the object shaped,
A fitting instrument is for what itself has wrought.
From the same stuff,
Cut by an identical process,
Thing and intellect to congruence come,
In a space-world forever unfolding.*

*No preëstablished harmony this
Of inner to outer realm corresponding,
Nor spirit nor form by the other determined.
Stranger far the genesis whereof I speak:
From the universal flux,
In a moment that is ever unique,
Life to new consciousness springs;
Creator and created together evolve,
In a time-stream continually changing.*

MY BIBLIOGRAPHY *of* FOURTH-DIMENSIONAL INSIGHT

WHILE to books I owe much, I owe still more to the beautiful people by whom I have been, like Marcus Aurelius, all my life surrounded, and particularly to my parents of large vision.

CREATIVE EVOLUTION: *Bergson.*

An intuition so great that if spatialized it would lead to a world of infinite dimensions.

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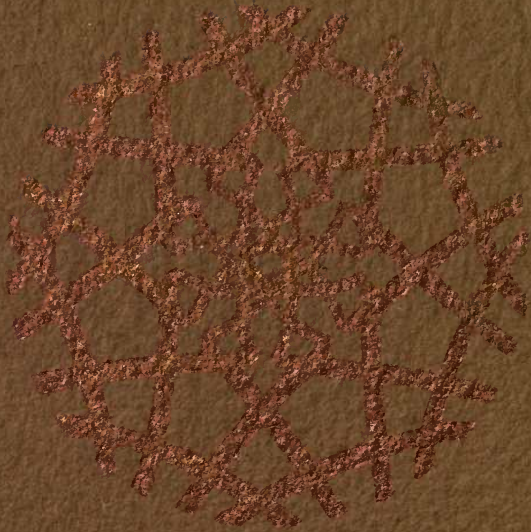
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CORA LENORE WILLIAMS, M.S., WITH
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