'[The Greeks] called it KOSMOS, which means ornament'

he title of this article is a statement quoted from a translation of *The Etymologies of Isidore of Seville*, 615-630 AD. The article proposes that the content of ornament is primordially derived from the eternal motions found in the macrocosm, a cosmology of ornament that looks beyond the extreme subjectivity that dominated modern art in the late twentieth century. The findings are rooted in the history and major theories of ornament, to be buttressed by examples of ornament-design throughout the ages. Finally, the article reviews the author's own work in that light.

Introduction

This essay was inspired by the Donner Institute's programme for a discussion on a conflation of art, science, and religion. I an particularly grateful that they recognize ornament as a legacy that must be included.

Works of art, especially in the late twentieth century, were beholden to the nineteenth-century concept of 'fine art' which privileged the self-sufficiency of a solitary work of art, such as an autonomous painting, or a sculpture, or the form of a singular building. Simultaneously, an exploration of the subjectivity of the *self* in the mind sciences, including philosophy, privileged ideals of individual freedom. Imagining the artwork or the 'self' apart from the 'other' suggested an independence of being. As a consequence, individuation took command and generated an art world of autonomous objects liberated from history, tradition, place, and nature. The visual arts inclined towards looking inward, apart from the world-atlarge, to become more sequestered as stand-alone products in museums.

By contrast, ornament is necessarily an art-of-

dependence requiring intimate contact with a 'holder' (the physical thing and place being ornamented) in order to perform. Its visual purpose is realized by being *united* with a conventional thing such as a bowl, a fence, a building, or a street. Nevertheless, ornament manages to present a curiously familiar, even an autonomous appearance of its own to the casual eye. We can sense ornament as a separate entity and remember it as having a look of its own apart from its unity with something else.

But what is 'ORNAMENT'? More precisely, does the noun 'ornament' require a rigorous working definition in order to be a subject of discussion in schools of design, or at a conference? Can we assume that ornament is a generally recognizable phenomenon for which a rigorous definition is unnecessary? I used to think so. Yet, having conducted a seminar in the subject for over 35 years, while simultaneously designing and negotiating built projects of ornament, it became obvious to me that we do need a strong, indeed a sustainable definition of the term today. For example, ornament's particular identity is confused in our dictionaries with 'decoration'. Its visual function has been deflected and obfuscated by a century of abuse. Even worse, the purpose of ornament is positively misunderstood and has become regarded as merely a dispensable 'aesthetic' accessory or dressing. Why did our knowledge of ornament, having been so exalted over time and having remained in continuous use since the beginning of recorded history, become so mutilated in the Academy by the late twentieth century? How may ornament be reconsidered in the twenty-first century? In these respects, locating a seminal definition is necessary. A first step is to distinguish ornament (and ornamenting) from decoration (and decorating).

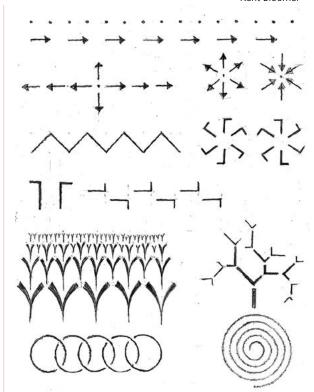
A distinction

The particular identity of ornament was generally understood in the literature of ornament at the end of the nineteenth century. Ornament's unique makeup was brilliantly illuminated in the masterpiece, The Grammar of Ornament (1856), in which Owen Jones compiled an international taxonomy of 'certain' typical types of repeating 'decorative' elements of figures found on useful objects and the typical ways they are periodically distributed into those objects. He cemented his findings by revealing that those figures were remarkably similar in every culture throughout the world. We might say he was using modern group theory. The figures he illustrated in The Grammar lucidly reveal both a limited and a universal type of figuration evidently derived from a poetic physics of nature. Moreover, those figures appear to be organized by fundamental operations or tropes of repetition and symmetry.

In the classical stages of three major cultures, elegant 'Keys' of ornament appeared which refined the tropes and spirals. These figures belong to a very small visual 'alphabet' and grammar suitable to being distributed amongst practical objects in strategic ways, usually in a linear or gridded periodic format. Ornament's figuration appears to perform somewhat like a written language as well as a purely visual composition and thus ornament seems to be an abstract pictographic script akin to hieroglyphics. But what is the meaningful content of the Keys and their alphabetical repeats?

My best finding appears in the seventh-century *Etymologies of Isidore of Seville*, written in the last days of Plato's Academy, where he includes a chapter entitled, 'The cosmos and its parts' ('De mundo et partibus').

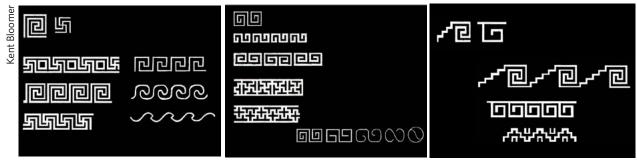
The world (*mundos*) ... is in eternal motion (*motus*), as are the sky, the sun, the moon, the



Tropes of ornament.

air, the seas. Thus no rest is allowed to its elements. ... They move of their own accord. But the Greeks adopted a term for world ... derived from 'ornament', on account of the *diversity* of elements and the beauty of the heavenly bodies. They call it 'Kosmos', which means 'ornament', for with our bodily eyes we see nothing more beautiful than the world. (*Etymologies of Isidore of Seville* 2010: 271)

Ornament, in Isidore's light, manifests the visible activity of the cosmos, a poetic tapestry of things in eternal motion which both constitute and locate us within an immense world-at-large.

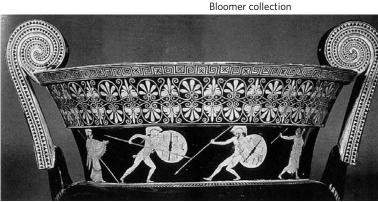


From left to right: Greek Key, Chinese Key, and Mayan Key.

Bloomer collection Kent Bloomer



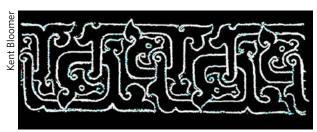




From left to right: Chinese bowl, Capilla del Rosario, and Greek bowl.

Isidore includes atoms, clouds, lightning, rainbows, and the River Meander as exemplary *partes* of his cosmos. A remarkable feature of his examples is their classification into what today would be a purely physical rather than a societal framework. Ornament as cosmos, viewed by Isidore, is about the grand physics, supreme nature, without reference to ourselves or our social constituencies. Do Isidore's physical elements, by *moving* of their 'own accord', suggest a primal force in physical nature?

The umbrella content of decoration, by contrast, is fundamentally societal in both contemporary and ancient usage (Vitruvius 1960: 209; Jespersen 1988: 12-13). A decoration could be a badge of honour or an award. Good 'decorum' manifests good taste and propriety. Decoration, privileging social structure, may include ornament as one of its many instruments, but so may a furniture arrangement. The composed elements of a decoration visualize circumstance governed by fashion, politics, and social conventions. Unlike ornament, decoration has neither a discrete alphabet nor a universally typical system of distribution or composition. Decoration serves to arrange many types and groups of things such as light fixtures, furnishings, art works, color schemes, moldings and so forth. In our industrialized modernity, painting a room entirely white is considered an act of decoration, but where are the visible elements of ornament on a white wall? Ornament always presents its own 'alphabet'.



Yin-Yang serpent.

Keys, Bio-Keys and their 'eternal motions'

In ancient cultures the 'Keys' distributed in phrases and sequences were often designed as purely geometric figures. At the same time they also became entangled with fragments of plant, animal, and human forms emerging from the geometry. I have come to name the latter hybrids 'Bio-Keys' which incorporate intricate dimensions of motion and action with a sense of a living and driving force. Sometimes fragments of the plants and animals become dominant and nearly submerge the underlying basic geometry. They appear as metamorphoses.

In ancient Egypt the Bio-Keys were often repeated in both one and two dimensions. This ancient visual 'writing' is intensified as its repetitions are further rhythmized, much like poetry. 'Rhythmizing' refers to the ornamenter's visceral act of generating and driving elements of rhythm. Rhythmizing may syncopate the repetitions, like drumming, dancing, and rhetorical ways of thinking.

Alone, the Bio-Keys could be exhibited as curiosities or metamorphoses like griffins or dragons, or as independent artworks. Independent metamorphoses in a museum would be comparable to descriptive illustrations of individual plants in a manual of botany which are purposefully disconnected from the ecology of nature and not intended to be comprehended as critical parts of a forest or a garden.

But how does the 'thing' being ornamented, its 'holder', become an 'ecological' part of those potentially free-standing and rhythmized figures? Conversely, how do the figures of ornament manage to become an 'ecological' part of the holder? How can elements of ornament and its holder become intimately united? These are the questions which must be addressed *today*. Without answers, ornament's value in the twenty-first century will remain suspect

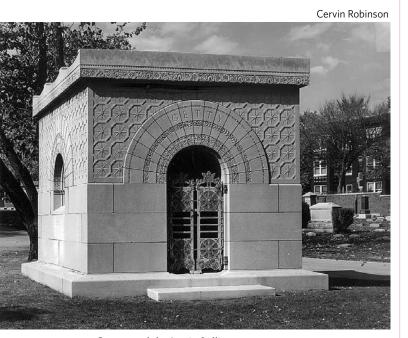
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and will continue to be viewed as non-essential to modern design and architecture.

The holder

It is axiomatic that the holder must reveal the defining form of its specific identity as the particular thing being ornamented. The primary form and material elements of the holder cannot be covered over, consumed, or visually obliterated by the advent of ornament without cancelling the purpose, which is 'to ornament' a particular thing. On the contrary, the form and active function of the holders of ornament are most effective when they are further refined to emphasize their unique, utilitarian form. In other words, ornamenting a particular thing proposes that both the primary identity of the ornament's typical figurative make-up and the precise identity of its holder's form remain intact, coherent and visually legible. Both 'make-ups' must also be conventionally recognizable in order to realize the wonder of their being combined in the first place. What then prevents the final product from being regarded as two independent entities or disciplines?

One *exclusive* strategy, valorized in twentieth-century design ideology, particularly in architecture, was to 'synthesize' the specific articles of difference inherent to both the figures of ornament and forms of the holder in the project of designing a building. Curiously it was assumed that the significant



Getty tomb by Louis Sullivan.



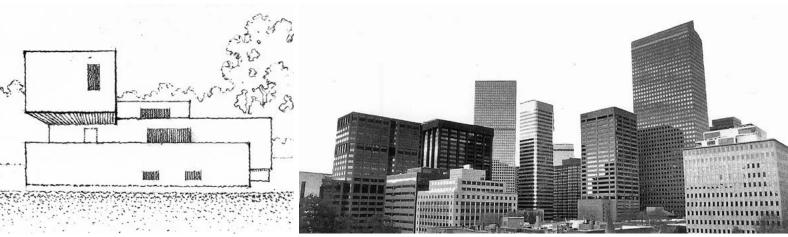
Ronald Reagan National Airport by Cesar Pelli, Trellis by Bloomer Studio.

properties of ornament and its holder would be unconsciously preserved in the synthetic product. However, in practice the act of synthesis privileged a process of 'blending' in which visible properties of *difference* were altered or forfeited in favour of 'reformed' or standardized articles 'simplified' to do the work historically performed by different types of figures and formations (such as ornament). Thus, while synthesis promised to economize the fussiness and complexity of differentiation it achieved the destruction of the value of differentiation.

By the mid-twentieth century, especially in architecture, such a strategy effectively 'white-washed over' the means of articulating different 'realms' of content in order to present a spectacle of 'integration' which has certainly contributed to a reduction of diverse visual wealth in favour of producing a standardized homogeneity, especially disturbing in urban design.

Another *inclusive* strategy is to distribute explicit elements of ornament into ready-made places of transition, or 'gaps' within its holder to achieve an 'entanglement' rather than a 'synthesis'. In a building

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Left: Master's house by Walter Gropius, Bauhaus. Right: Denver, Colorado, skyline.

these may include spatial intersections, edges, façades, prosceniums, stair halls, and structural joints. Such places display the presence of coincidental or converging moments of containment which are already 'in-place' as intrinsic properties of the object being ornamented. By contrast, fluid expressions of repetition, which are innate to ornament, emphasize eternal motions of continuity, rotation, and rhythm, rather than the stability of a container. A metamorphosis would be at home in such sites with one-half here and the other-half there. Following are examples of ornament distributed into places of transition.

The problem of difference

But how does a juxtaposed entanglement of ornament's explicit alphabet with specific places of transition achieve an expression of unity rather than a display of dis-unity *qua* difference?

Let us describe places of 'transition' between

things as places of 'difference' between things. Observe that the Keys and tropes of ornament (its repeating spirals, fractals, and zigzags) are figures in search of pathways and places to accommodate their ambivalent motions, extensions or contractions – even explosions. They epitomize the vital 'physics' of nature by suggesting the diversity of life, rather than a resolved death of activity. Their 'physics' thrives in the work of the ornamenter who begins by imagining their motion within the open elastic space of voids as being changeful, restless,



Greek amphora, drawing by Kent Bloomer.

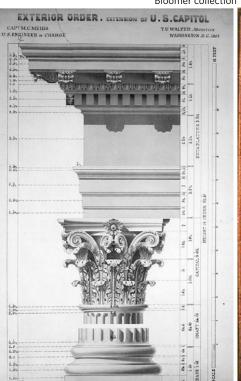
and exploratory at all scales. Ornament's pathways of repetition inevitably push against boundaries even as they continue to generate emerging and re-emerging cycles. Is it possible that their hints of aggression provide a kind of behaviour suitable to bonding? Certainly their movements contradict the firmness and resolution of the holder upon which their performance as ornament remains totally dependent. Why then doesn't their display of force and active mobility deliver a contrary and resistant expression which seems to contradict a condition of union?

Ornament, distributed in a 'place of difference' (the specific region constituting the gap), can dissolve the pure space of the 'gap' or its 'void'. The 'gap' will become an activated region in the process of being filled with ornament and conceivably a solid region when filled completely by a proliferation of virtual forces generated by the antics of ornament's pulsating figures. The space of the 'gap' is virtually enlarged (Focillon 1989: 65). Emptiness gives way

to a lively interactive atomic domain. There is no longer a still-born 'presence of absence', but rather an all-consuming visual presence of energy (like boson particles) and momentum.

But what prevents such an atomic domain from manifesting chaos and an unruly vision of disorder? Is the strategic delivery of ornament into a place of difference ultimately able to marshal the frenzy of ornament?

A place of difference is constituted by physical boundaries and edges conferred by the articles of difference. Such





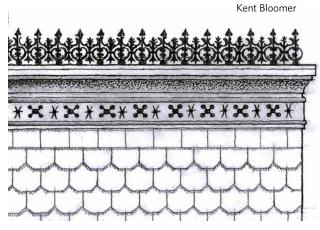


From left to right: Corinthian order, Chinese window, and Chinese chair.

a place is a container and possibly a receptacle. In the words of phenomenologist Edward Casey a place is where 'things (qualities, powers, motions: ultimately perceptible things) come to appearance, exchange positions, and gain their place' (1997: 36). The galaxy of ornament's collective alphabet is given a domain of differentiation in which to settle. If the alphabet were delivered into a pure unbounded space its figures would be isolated or chaotically dispersed. A physical place, unlike pure space, is a 'topology of Being' (284). The feeling of nearness present in such a place is an 'active ingredient' inviting both 'Appropriation' and 'Expropriation' (278).

The philosopher Gilles Deleuze argued that a primordial force of difference is profoundly 'present' in the place between things. Consider the 'gap' between the inside and outside of a vessel, or between up and down in a staircase, or between a house and its landscape. Those 'gaps' suggest a virtual movement between their edges that may be visualized as lines of flight which may vary in intensity and direction. Such 'lines' visualize an immanent force of differentiation that precedes and generates the myriad productions of subsequent differences that may occur over time. For Deleuze the force of 'differentiation' is a first law of nature's power existing *prior* to the

generation of different kinds of things and parts of things (Barber 2015: 37). It is a primordial force that acts to originate multiple things and portend a future of different things. Its omnipresence over time generates a procedure of subdivision (like the six days of genesis). The terms of difference are reunited by the collective *forces of difference* present in places of difference. In the past I have attempted to argue that two or more-ness is a primordial ordering force to which I must add the idea of 'difference' and its pointing to a special kind of complex, rather than pure, 'unity'.



Edwardian house cresting.

In this light observe that all of ornament's alphabet of hybrids and metamorphoses manifest the phenomenon of differentiation, such as a fractal or a dynamic lotus, driven by cycles of birth and death, dramatized by the zigzags of repetition. Observe that the basic tropes of ornament portend virtual movements between different things and different times. That is why they are the chosen figures of ornament's alphabet. Ornament's connective line work, its winding tissue, is the antithesis of the closed, resolved, and stationary forms found in neoplatonic squares, crystals or any 'completed' thing. Ornament's periodicity, its strident cycles register differences of location.

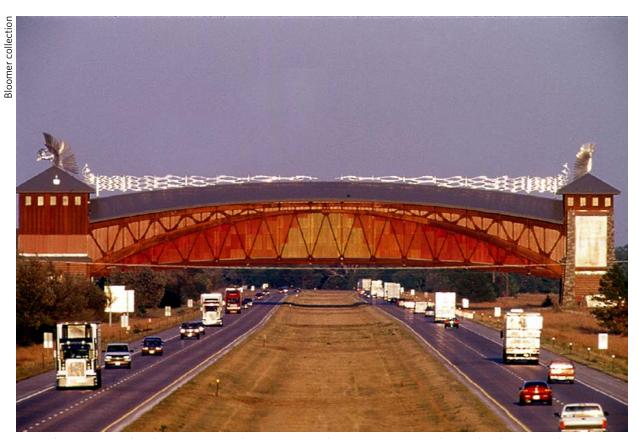
A *thought* of difference, for example our imagining ourselves changing position by moving from one side of an actual doorway to another side, is a virtual reality. Yet, by regarding the frame of the doorway as the fixed frame of the world, we may sense a complex unity between the frame and the motions within. The moving bodies are not sensed as being apart from a single organizing field of force.

Finally, while the hybrid figures and metamorphoses of ornament may originate in the imagination, their expression, their ultimate manifestation

in the project of built design, must be rendered in material form. At that point the 'virtual' thoughts of ornament become material figures. They become as actual as the thing being ornamented. Ornament's expressions of expansive nature, entangled with the holder's contained and mundane expressions of earthly construction, complete a vision of the entire world in which the holder is situated. Ornament and its holder are united as players in a cosmic narrative. How then must the visual designer 'design' such a complex narrative? How does this vision of a complex unity of differences become clearly expressed in the visual details of ornament and the formal details of furniture, buildings, or landscapes in a manner that is a meaningful exposition and not merely an 'artistic' composition?

Conventionalized shapes of nature

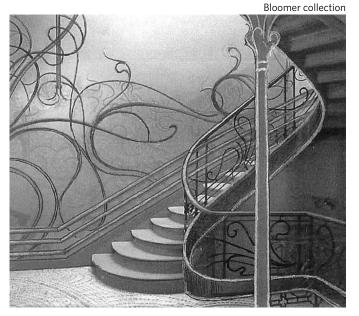
Figures of great ornament are curiously 'linguistic'. Consider that both the dynamics of nature encoded in the figures of ornament and the statics of nature encoded in the forms of buildings must be explicit and comprehensible to the public at large. They must



Great Platte River Road Archway Monument by Peter Dominick, Cresting, Wings, and Horse by Bloomer Studio.





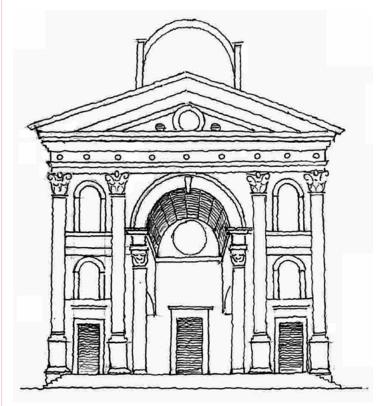


Left: Teller's wicket in the National Farmers Bank by Louis Sullivan. Middle: Carson, Pirie, Scott Building frieze by Louis Sullivan. Right: Hotel Tassel by Victor Horta, drawing by Kent Bloomer.

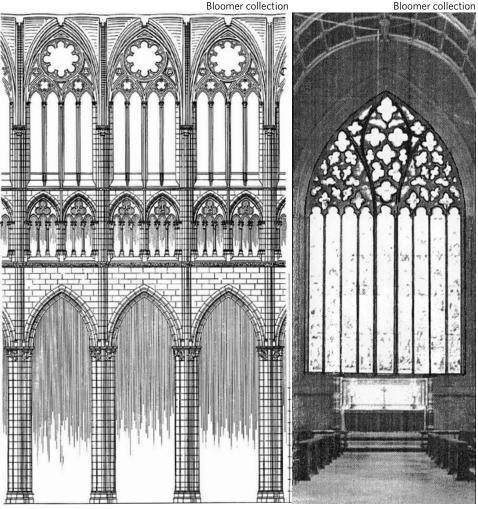
have legible and familiar shapes. Moreover, both explications must 'speak' in the same idiomatic way. If the figures of ornament employ unique or esoteric codes to express their universality, while the holder speaks in contemporary practical phrases to express its provinciality, the ornament might be perceived as arbitrary or mere aesthetic rubble. Similarly, if a building or a bowl fails to conventionally illuminate the laws defining their structural supports such as posts and beams, or their boundaries between inside – outside, or earth and sky, they may blur the shape of convergence essential to the narrative. Expressions of the physics governing both realms, the ornament's and the holder's, must belong to the same conventionalized 'language'.

Articulating appearances of differentiation in a holder requires, like phonetic language, the use of 'conventionalized' grammar. The public must be able to 'read' the connections between visual 'words' immediately. From ancient classical architecture to the middle of the twentieth century, magnificent works of architecture usually explained the ways buildings are built. A layer of virtual construction was often added over the inarticulate debris of actual construction to portray an ideal 'physics' of construction. In the Renaissance the orders of post and beam, particularly columns, were added as pilasters and mouldings to cover rubble walls that actually supported the roof. In the high Gothic of cathedrals, virtual shafts appearing to be multiple supports

were added to the bulky piers which provided the actual support. Tracery, Gothic's supreme ornament, emerged out of a row of lancets apppearing to be a collonade of slender columns.



Basilica of Sant'Andrea by Leon Battista Alberti, drawing by Kent Bloomer.



Left: Amiens Cathedral triforium. Right: Carlisle Cathedral east window, collage by Kent Bloomer.

In nineteenth-century-stick-style architecture, a fantastic layer of construction might stand in front of a mundane façade thereby subordinating (without disguising) the primary shell of practical construction. Upon the joinery of the added layer of construction, a superadded layer of ornament can be distributed to fulfil the world picture by articulating *partes* of the cosmos. The 'grammatical' steps from actual to virtual is seamless.

In a modern airport the tree-like steel construction of the terminal anticipates the Y-forms along the bottom of the ornament. The actual and the virtual supports visually quote each other while also expressing the different realms belonging to a single cosmic edifice.

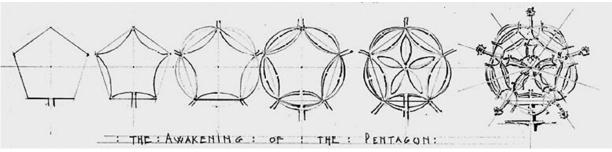
Left: William J. Clark house by Henry Austin.

Ornamenting is an ancient practice constituted by a geometric discipline which, like speech, acquired a legible vocabulary and grammar. In those respects it became a visual language wrought from a history of self-evident truths sustained over time by continuous re-expression. It is neither merely a creative art nor a fashionable newness. It is more a cultural inheritance dedicated to manifesting the *forces* of creation in our material fabric. Yet its fundamental *invariant* types of tropes are capable of marvellous *variations* in places of difference.

The primary purpose of ornament is to invest, to donate to its holder an 'order' of enlivened cosmic fragments capable of completing a world picture which is larger, greater in number, and more inclusive than the provincial realm of earthly structure articulated by its holder. The holder by itself is more able to present a composition of harmonies, a sort of neoplatonic ordering of immovable parts, but not







Top: Ronald Reagan National Airport by Cesar Pelli, Trellis by Bloomer Studio. Bottom: 'The Awakening of the Pentagon', drawing by Louis Sullivan, Plate 5 in his *System of Ornament*, 1924.

the livelier laws of force and uncertainty imagined in the 'eternal motions' circulating in the world-atlarge. The antics of the ornament therefore awaken and situate the building in the universe. They endow a visual magnification of beautiful activity beyond the boundaries of a local place.

Yet the holder is an indispensable agent in achieving a cosmic narrative beholden to nature. In presenting *its* portion of the cosmos the holder may donate an actual, elegant, stabile, and mundane make-up to ornament's virtual and circulating make-up. Ornament's purpose is dependent on that donation. Holders may remain firm and dormant, almost as sleeping bodies to be awakened, secured from the wild as their urbanity civilizes the unlimited impulse of ornament. However, by themselves they remain unfulfilled. Worse, their illusion of certainty, completeness, and resolve might even obscure our glance of the largest place in which we are situated.



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