

## KENT BLOOMER TRANSCRIPT

### *THE LANGUAGE OF ORNAMENT: RHYTHM, MOVEMENT, AND THE COSMOS*

Yale University Colloquium: "Ornament's Refracted Cosmologies"

You Tube, April 7, 2021

While majoring in physics, architecture, and sculpture, in retrospect I was surprised what I picked up. I studied with György Kepes from the Chicago Bauhaus at MIT, Josef Albers from the Weimar Bauhaus at Yale, William Huff and Thomas Maldonado from the new Bauhaus at Ulm at the Carnegie Institute of Technology. I might as well have majored in the Bauhaus! The trajectory of the Bauhaus then was spawned by the Berlin School of Experimental Psychology and the thinking of Max Wertheimer who was a founder of Gestalt Psychology. His phenomenon, that motion is perceived from a series of blinking lights, is a seminal example of a gestalt which is regarded as a universal phenomenon; so is the figure-ground phenomenon.

I'll just explain those two classical early experiments in the Weimar Bauhaus, or even before, at Berlin. If you have a bunch of lights and you're in a dark room and there are all these light bulbs: one-two-three-four-five-six-seven-eight-nine-ten-eleven; you turn on the first one, turn it off, then you turn on the second one, turn that one off, turn on the third, then you turn that off, then you turn on the fourth, so basically you're running the ignited lights down the wall. If you speed that up in a dark room, you eventually get a moving straight line. What is interesting about this to them, is that was the case, although there was nothing moving. So, the phenomenon of moving was a gestalt, was a closure of those lights in the optical brain.

As far as the figure-ground, I assume that most of you know as much as I do about that, but let me just point to a couple of things about it. If we get the Japanese flag, with a circle inside of a rectangle, you can look at that two ways and you can make up your mind what you want to see, if they are correctly calibrated. You can look at it as a circle with a rectangle behind it, as the space that moves behind the circle, or you can look at it as a hole in a rectangle that you can put your hand through and the space moves behind the rectangle.

So, in both of those cases the gestalt achieves a reading which has more complex space in it and more movement in it than a simple percept would have. That is a gestalt. The gestalt expands the possibilities of what you are seeing.

Gestalt experiments were scientific studies of how we perceive, process, and engage sensory phenomenon. Unfortunately, the immense legacy of ornament, which really was all about that, was being widely condemned by Euro-Modernist design theorists who, after World War II, influenced the removal of its study from the curriculums of art and architecture schools.

In my early lifetime, I experienced in the northeast the conflation of those two projects. One was the tremendous teaching that was going on about Gestalt phenomenology and the elimination of ornament from the curriculums. That was crazy, in retrospect. A valuable body of knowledge was thus blindsided.

So, in 1975 I founded a course entitled, “The Theory and Design of Ornament” for Yale College. Besides reviewing the 20<sup>th</sup>-century ornament of Sullivan and Frank Lloyd Wright, the course readings included Owen Jones’s 1856 *Grammar of Ornament*, Racinet’s *Polychrome Ornament*, Dolmetsch’s *Treasury of Ornament*, and Hamlin’s, actually quite sophisticated, 1916 *History of Ornament*, and, of course, we read Ruskin. But it was mainly the encyclopedias that visually provided the class with a survey of great ornament.

At the same time, I enlarged the Bloomer Studio, where I had made sculpture, that designed and fabricated ornament in architecture. Actual practice requires designing, conceiving, negotiating and building, and hearing the public reaction first hand. So, early on, I tried to up the ante of the importance of public reaction and point out the absence of academic introduction.

I began the course with one precise axiom by saying that ornament is a system of figuration which must, absolutely must, connect to and become embodied with the thing being ornamented. Achieving that union is an absolute property. That was the only hard axiom I put in there. You can’t have an autonomous figure of ornament and call it “ornament.” It has to be united with the thing being ornamented. It’s that interaction, that closure, that makes it do what is actually happening. It cannot be autonomous.

In retrospect, the biggest problem, however, in the early years of instructing the course, remained an absence of a rigorous definition of ornament capable of distinguishing its identity from those of decoration, symbolism, signage, or works of applied art. That absence made it nearly impossible to rigorously criticize the students’ designs, especially in schools of architecture, because any student could bring in one of these alternate things that were thought to be ornament.

Decoration - ornament can be an element of decoration, but it is not, fundamentally, decoration. It's something that you put inside of a system of decoration.

Symbolism – the anthropologists love symbolism. If you're talking about ornament with them, they will come up with the question, “what does it symbolize? And please realize that is esoteric knowledge. You really have to know what you're doing to know what the symbol is.” They put a kind of a blockade in front of ornament. That you had to have this specialized knowledge to experience ornament, which is not the case.

Signage – after Venturi's book there was an association between ornament and signage. It's not a sign, and so on.

So, how do we find out what it is? There are plenty of hints of ornament's unique identity in Owen Jones's 1856 *Grammar of Ornament* and in Henri Focillon's *The Life of Forms in Art* published in 1934. Fortunately, we read both of these books in the early part of the course. Focillon wrote, “Ornament was perhaps the first alphabet of human thought to come into close contact with space.” Note the term “alphabet” which suggests that ornament is constituted by a finite or a limited index of figures. The existence of an alphabet also allows ornament, like our phonetic alphabet, to be something that has developed over thousands of years. It is not a product of innovation.

Kresten Jespersen, who was William Jordy's student, wrote the first dissertation on *The Grammar of Ornament* and he did something that I did and that Kassandra actually did because I asked her to do it and we worked together on it. We went through all the encyclopedias to see if, in fact, there was a limited set of alphabetic things in it and we found that yes, absolutely there was.

Jordy, Jespersen, myself, and Kassandra picked up, on reviewing thousands and thousands of recorded ornaments, that there is a very limited number of them and that certain ornaments prevailed enormously over others, such as ones that appear to have foliage, like the leaf, which is, of course, why I believe the acanthus and its fractile makeup was so powerful in classical architecture. And Kas is here and she has offered to spend time with anybody who would like to go over those statistics. I think they are very valuable examples of ornament that have existed basically for thousands of years. File them, do a figural analysis of them, and you'll see the consistency of certain of them over others and that consistency becomes an index of determining what is ornament.

So, I'll make a generality, which is that there is probably no such thing as new ornament. That is probably a false conjecture. There are new ways of fabricating it and there are new types of things that are being ornamented and those give you a different way of experiencing these basic figures, but that's not because ornament is new, that's because ornament has been brought in to the way we do things nowadays, which is different from its linguistic essence.

As that became apparent, sort of in line with Focillon's notion that ornament provided the first alphabet to come into contact with space, I found myself considering ornament as being more language-like than art-like. Art has this sense of autonomy and innovation that ornament doesn't have. Ornament has something else which I think is extremely competitive with those two which is it has a timelessness. It has well-seasoned tropes. It goes back to the stone age when, with whatever tools they had, they would smash little marks into a spear. And as soon as they improved that ability to do those marks, they could turn those little spears into more complex, fundamentally geometric shapes. And those go back thousands of years. The encyclopedias take us back to recorded ornament that we can see right now and see how it was done. It goes back several thousand years.

In the 1969 book, *Visual Thinking*, by Rudolph Arnheim, (who studied with Wertheimer. Wertheimer eventually came to New York and taught at the New School), declared that visual perception IS visual thinking. A visual percept can be a malleable thought among many. So, these figures of ornament, are -- let's call them linguistic elements that, put together into a field of interactions, do, in fact, narrate something, something quite clear. That led me to a stronger urgency that the original content became a necessity, given the magnitude of the destruction and the confusion that has crippled our profound understanding of ornament. Although I listen to Nikos who has very interesting ideas about it, -- thank you for being here – he has explained it from an entirely different dimension than the kind of historical one that I'm taking, but it's the same thing. It comes to the same conclusion.

So, I had to find this original definition in light of the confusion. And I found my way back to Plato's Latin Academy (it is a Latin word, *ornamentum*), where the word was minted into Western thought. That was in the *Etymologies of Isidore of Seville*, which is an etymology in Plato's Academy and is sort of a mixture of a dictionary and an encyclopedia. Isidore's *Etymology* was written in the 7<sup>th</sup> century AD, so listen carefully to Isidore's words – I'll just read them and make a declaration about what I believe he said. The title of Book XIII is "The cosmos

and its parts.” Paragraph I is titled “The world (De mundo).” And now I am quoting him: “The world consists of the sky and the land; the sea and the creations within them. ‘World’ (*mundus*) is named thus in Latin by the philosophers, because it is in eternal motion (*motus*), as are the sky, the sun, the moon, the air, the seas. Thus, no rest is allowed to its elements; on this account it is always in motion.”

Part two in the same paragraph continues, and again, I am quoting: “Whence to Varro,” (who in the first century before Christ was a major sort of etymologist in Plato’s Academy and his book on this was lost, unfortunately; it doesn’t exist), but he’s quoting Varro: “the elements seem to be animate, ‘Because,’ he says, ‘they move of their own accord.’ But the Greeks adopted a term for world, (*mundos*, also meaning ‘cosmetics’) derived from ‘ornament,’ on account of the diversity of elements and beauty of the heavenly bodies. They call it *κόσμος* which means ‘ornament,’ for with our bodily eyes we see nothing more beautiful than the world,” end of quote.

In ancient Greek, *kosmeticos* simply means cosmos made visible or audible and sensually harmonic. For Isidore, it required making the motions within cosmos visible, harmonic, and therefore beautiful. So, there it was, on one page in Isidore, a definition. It was the only definition that made complete sense to me in the light of all I have ever perceived visually or verbally re ornament. The term “cosmos” itself was most likely coined by the pre-Socratic philosopher Pythagoras and his colleagues. Pythagoras also formulated, by the way, the four basic forms of geometry, point, line, plane, and solid, and the four numerical ratios, governing the harmony in musical chords. So, the idea of cosmos and ornament surfaced with music and architecture, and all the things that we treat as architecture surfaced in Pythagoras’s research that led to the term “cosmos.”

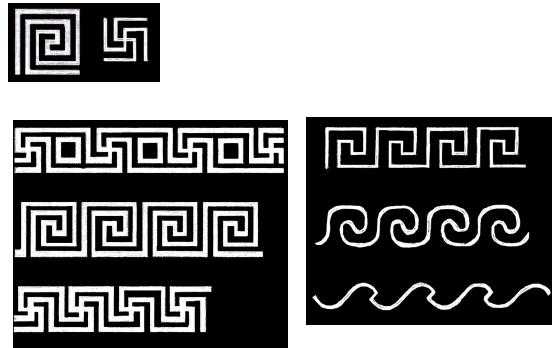
So now what that leaves us is, “how does cosmos become a singular idea which is visually shaped and perceived?” If we know it’s cosmos, and we accept that; if we grant that cosmos is making visible the motions of things around us, the stars – everything as it were, how do we check that? Music theory actually – and I had come to understanding this quite a while back, but not with the clarity that has surfaced in music theory on ornament – helps to answer that question. Basically, allow that figures of ornament are not connected to bodies of music and architecture in whole cloth. Instead, they connect directly to pure but subordinate sub-structures of music and architecture which are the essential parts, the *sine qua non* of a work of

architecture or a piece of music. I can be more precise about that. In music theory there are three sub-structures that constitute the essential structures of music without which the concept of music collapses. They are rhythm, melody, and harmony. So, what is being considered here is that ornament does not ornament music, it ornaments, for example, rhythm, or it ornaments melody, or it ornaments harmony. So, the research that I've done on this indicates that in the largest percentage it ornaments a quality.

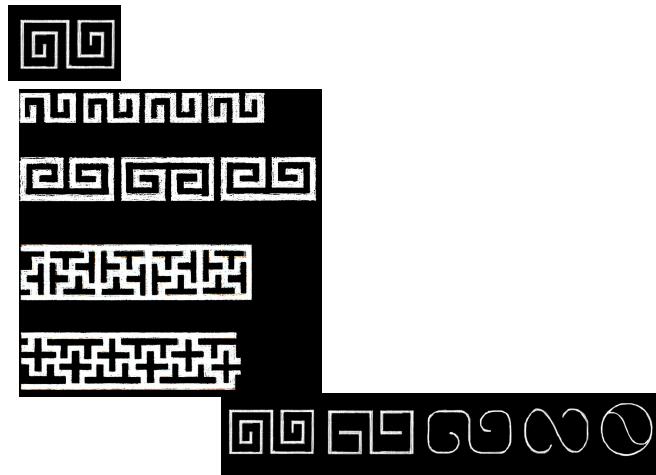
If you move over into architecture, we can go back to Vincent Scully. Vincent Scully was the great historian at Yale when I was a student there. He said that ornament ornamented construction. That's how he put it. Or that ornament ornamented an element of construction. So, he was doing it correctly in the sense that he wasn't saying that ornament had made a big leap and was ornamenting architecture. It was ornamenting construction. Now, I've worked on that idea a little bit and I've realized that today, the way architects think and work and the way we all do our designing, we also think of space. And it would be impossible, and it works perfectly well, to say yes, one of the structures of – one of the essential structures of architecture is construction but another one is spatial formation because the architect makes coherent spaces and it's those coherent spaces that are ornamented. And I've had long talks with Turner Brooks about this one and I might have sounded at one time that I wasn't paying enough attention to space, but I have to totally grant that space is one of those structures that receives ornament. So, that's what you ornament!

To do this in architecture, a figure of ornament must visually adopt properties of construction's work. But it must do so without simultaneously discarding its own particular identity. Ornament is a combinational system. It is a gestalt. That is absolutely essential to ornament. It happens as an interaction between its own alphabet and a coherent event in the structure that it's ornamenting. It's a closure, it's a gestalt. The philosopher Jamison called ornament a parergon. A parergon is an auxiliary to work and it was one of the more interesting philosophical descriptions of ornament in recent years, in the recent decade, I should say. Parergon is difficult but it's not incorrect. It is an auxiliary to work.

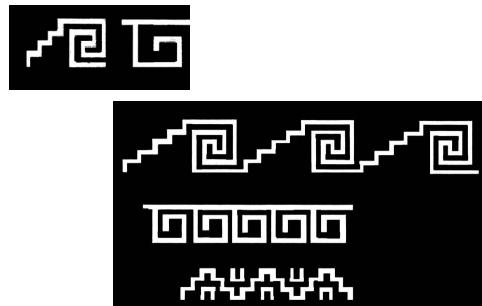
Let's go back and put some illustrations on – I was talking too much.



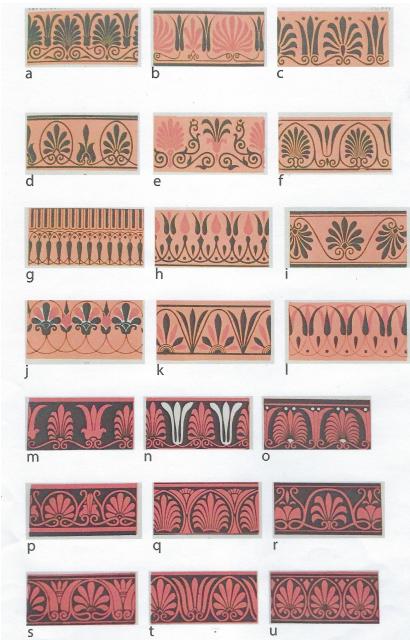
One of the first things you find in the investigation of all the figures that are in Owen Jones and in the encyclopedias are the keys of ornament, like the Greek key in the upper left. The Greek key is really a combination of a spiral, but it sometimes moves itself into a rotating figure like a swastika before it can repeat. When you look at the repeats of the Greek key and soften it, it moves into a sequence of squishy Greek keys, but then it moves into a wave action. So, in the West, a fundamental alphabetic element is the Greek key.



I went over to the Chinese side of the discussion and found that their key was basically the one on the upper left which is a spiral that turns back on itself. It's as though the one on the right and the left were forming a rotation. When the Chinese try to repeat their key, they built things like the repeaters down below and eventually they were able to figure out ways of repeating them in the last two that didn't involve the separation between two at a time. If you look down at the lower right of this key diagram, you see the Chinese key of the Ying Yang on the left. You see it simplified; you see it squishy; then you see it more rounded. It falls right into a Ying Yang circle. So, this rotating equivalence is a morphological attribute of the Chinese key.



The next key of interest is the Mayan key which is the American one. The American hemispheric one which you find in the Mayan peninsula, in the governor's palace. It's basically a step and a Greek key and a step and a Greek key. The Mayan culture was cut short. It became called "the step and the hook." They tended in much of their architecture to make a continuation of hooks and a continuation of steps. You find this in native American ornament. This key that came from the Mayan peninsula shows up in most of native North American ornament.



So, we indeed had these basic tropes in ornament. We see their presence in all great ornament. Going back to Owen Jones, who points this out very shortly in the beginning of his *Grammar*, he then shows us the extent to which the leaf became a predominant trope in ornament. In the upper left you have the leaf and the blossom, the lotus and the anthemion and this shows up continuously as a repeat system in ornament and forms a figural and animistic trope.



This also shows up in Islamic ornament. This is Racinet, where the Arabesque is in the middle, where they're not allowed – they're not supposed to quote nature. It still is quoted in the figure called the “arabesque” which then finds its way into most of Moorish ornament.



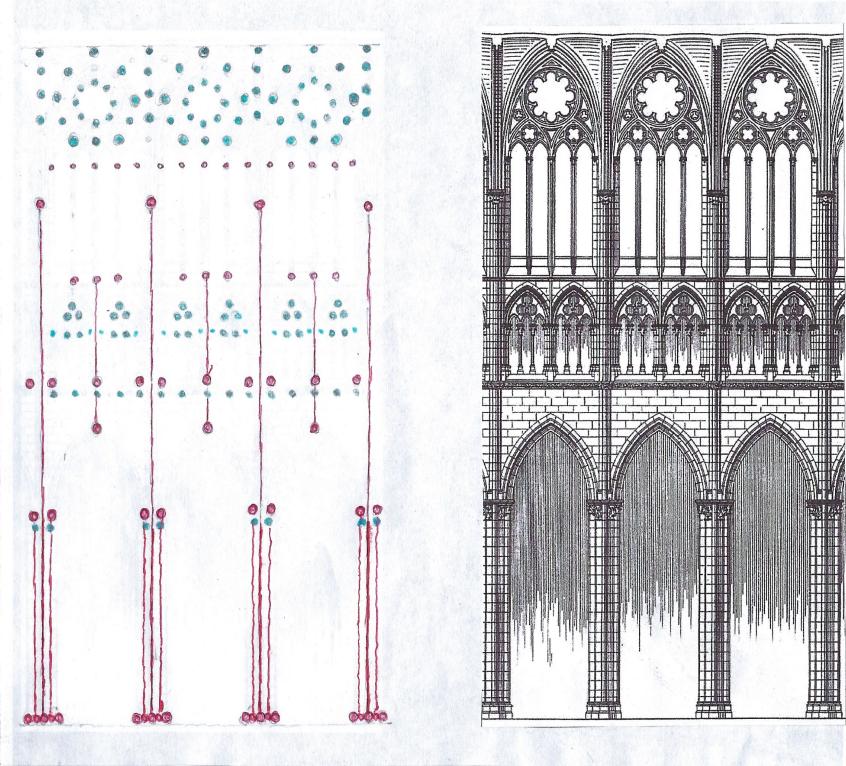
Then, going back to the Chinese, there were these wonderful examples of the entanglement of the animistic trope which is a leaf with a geometric trope of the ornament that you see in the upper left. This incredible composition on the right, which is done in the Ming dynasty, shows a conflation of those two tropes in Chinese architecture.



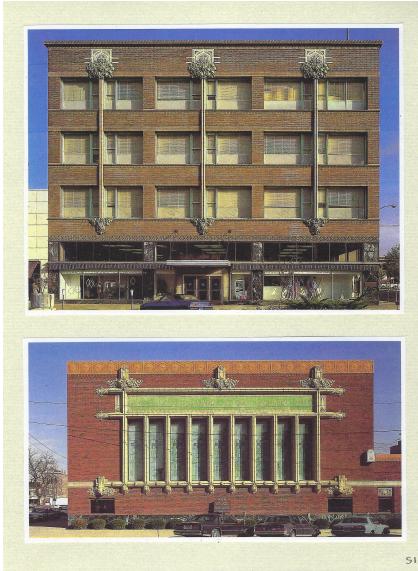
This is a fascinating example of ornament over a vast amount of time. This is a piece of pottery made by the Cucuteni culture in northern Romania in the Danube Valley. That was one of the first neolithic countries that started making ornament as we know it today and putting it on man-made objects. Notice that there is a spiral in the middle that in a primitive way is generating six spirals around the perimeter. This is about 4,500 BC.



This is an ornament by Louis Sullivan, in the early part of the twentieth century, on the Carson, Pirie, Scott building. Notice the spiral in the center propagating the small spirals that surround it. The only thing that's really changed from a morphological standpoint here is that Sullivan is now using foliation whereas the Cucuteni culture did not. But we have seen the survival of this trope for nearly five or six thousand years which is a very good capsule history of how ornament's alphabet develops and becomes firm.

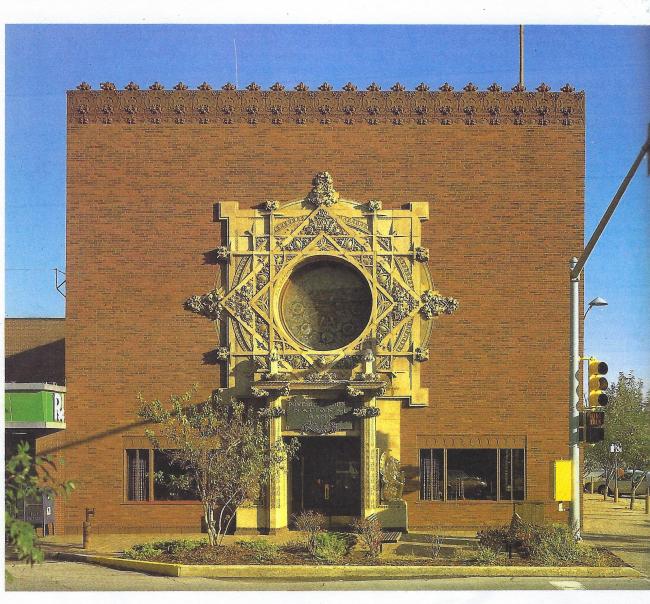


So, I talked about the definition of ornament as being cosmos and I'm leading to the question, "how is cosmos shaped and perceived?" – the singular idea of "how is cosmos shaped and perceived?" At that point, I went to music ornament and music theory. Now, the question I am asking is, "how do we put ornament into the substructure of construction's work?" And in that respect, I have this picture of the clerestory of Amiens cathedral which I visited shortly after World War II when the stained glass had been blown out, and had this elevation embedded in my brain. Eventually, it was determined that the ribs on Gothic cathedrals are doing virtually nothing to support the structure. They are not actual structure; they are ideas about structure. What's holding this building up are the buttresses and what's holding this wall up is this row of columns. The ornament would be the foils; the octofoil, the quatrefoil, and the trefoils on the capitals. If you do a diagram of construction and the ornament, you'll see how they are woven together at Amiens. The ornaments are linked. The formation and the distribution of ornament is linked with the formation and the distribution of construction. There's where ornament comes on board and becomes a part of the architecture.



How did Louis Sullivan do that? We'll jump from Louis Armstrong to Louis Sullivan. Louis Sullivan spent a couple of years in the École des Beaux Arts and became thoroughly versed in classical language, but look at what he did in the Midwest! And these buildings are all around 1913, '14, '15. Let's look at the bottom one. He knew that ornament had to convene with construction. But he was also building boxes. So, what he did, was he got to his window and he used the mullions of his window as his paradigm of construction. And he made them larger than life and he made the window mullions break loose and capture the box. Once he had done that, he ornamented the window mullions. The other thing he did was when he got on top of the building, he knew that ornament had to exist at the edge of the element of construction so he puts it along at the edge of the box. So, this is perfect ornament literacy.

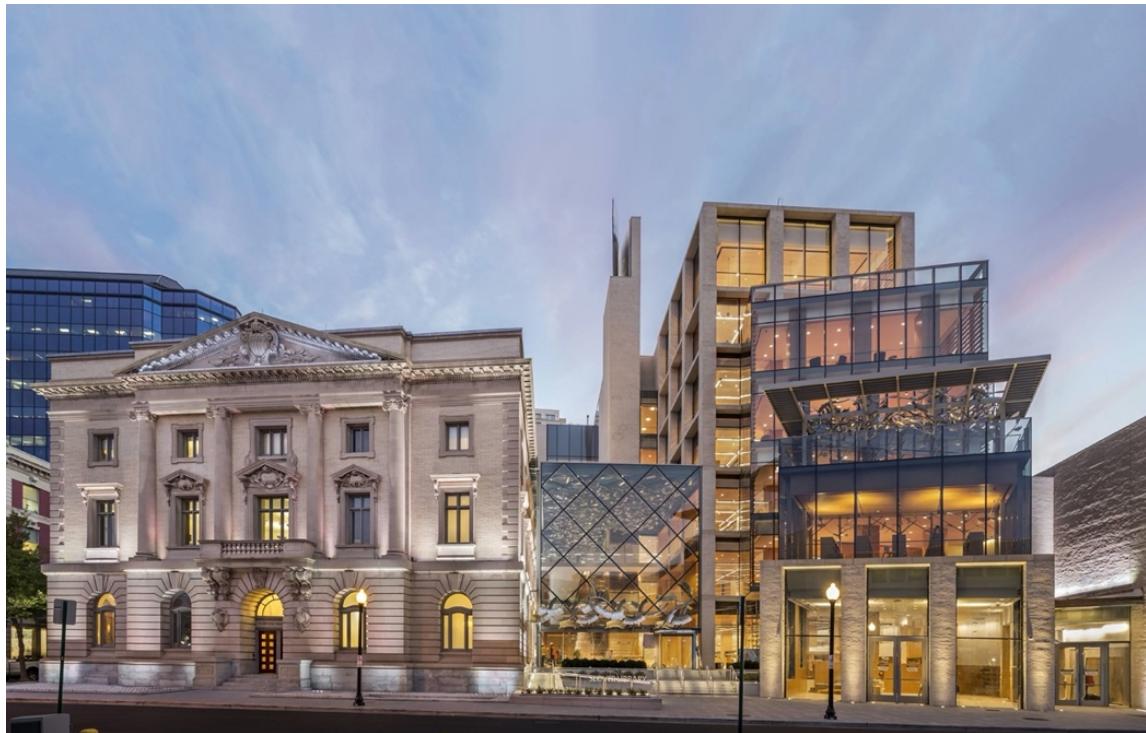
If you go up and look at this Van Allen building that was built around 1916 – when I first saw this building, I didn't like it; I thought it was weird. I thought, why is he taking these sticks and putting them on the side of the building and then putting the ornament on top of them, until it became perfectly obvious to me that what he was doing in his brilliance, he was addressing people in their cars who were driving by the building. This is something I had to encounter with my own struggle in designing ornament. By getting a contrived element of construction, which are these vertical things and ornamenting either side of them, making them giant, he can project the ornament all the way to a moving car. Otherwise, if you're up against the building, you can see it along the bottom of the box. You can see miniature and beautiful ornament all along the bottom ledges of the windows and along the corners.



A masterpiece of Sullivan, when it came to designing a bank, was to say, “well, I’m going to design a box.” This is a low-budget job. So, what does he do? He builds an entrance where he can visibly expose a structural system so he can visibly distribute his ornament into it. His ornaments ornament the substructure of construction, then he repeats the ornament idea around the perimeter around the top.



I'm going to show you my own work, and then I can finish my part of this and open this up. So, ornament gets into the body of the building by visually adopting or creating properties of the constructions' work, but it must do so, without discarding its own particular identity and function. Ornament is a combinational system. It is a gestalt itself. The figural percepts of motion such as the livelinesses and the foliage and wings, must be added to the bedrock of construction which Sullivan does eloquently. Those thoughts are visually absent in the purity of construction. This is what you have to realize – those thoughts – those livelinesses are visually absent in the purity of construction while they are prevalent in the motions of the world at large. That's what Isidore talked about. His cosmos was about the motions in the world-at-large. So, the world-at-large is then the motions embedded through ornament into the elements of construction. I tried to do this at the Reagan airport by quoting the way the building was actually built. These things along the bottom show up here and then repeat in two dimensions something that Cesar Pelli did in three dimensions, and then transform into active elements of ornament.



I did this also on a recent project in Norfolk, Virginia. This building goes back to the nineteenth century and it was eventually purchased and made into the public library of Norfolk. There was a competition to expand this and the Newman office built this minimalist tower – Herbert loved to express construction that expressed construction, leaving this space in the middle, which is a spatial formation which connects those two, so we ornamented space.



And this is an example of the old building, the new building, and a method of ornamenting the void of space.

What I'm going to say here about ornament, -- up to now I've been talking about how ornament gets into the body of music and the body of the building and it can be done in any number of shapes or budgets. The thoughts that are visually absent in the purity of construction are prevalent in the motions of the world of the environment in which the work of ornament is situated. You add to those motions – or you introduce to those motions a process of additivity. The phenomenon of ornament being added is a virtue. Additivity imports diversity, expands the forces and motions of cosmos into our perception of the pure and simple object being ornamented. To belong to a work of architecture, or a chair, or a rug, the animated figures of ornament must present a kinship, a likeness, or a self-similarity with the selected moments of construction or the selected moments of spatial formation which are essential to the work of architecture, or with those selected moments of rhythm, melody, and harmony to a piece of music. Ornament must connect the body of the objects via the structures being ornamented while simultaneously appearing to be elsewhere. So, ornament has to be in motion and elsewhere while appearing to have a likeness to the thing that is being ornamented.



This is how the Chinese did it in the Ming dynasty where they put their key into the construction of a chair. This is a very beautiful chair.



And this is how the Persians did it with their rugs. This is a Persian rug that I grew up with and I still have. I took a picture of it for this lecture. It's small, it's about  $3 \times 5 \frac{1}{2}$  feet. And what fascinated me, because I used to look at this as a child, was, compared to other ornaments, how many different kinds of leaves it has. Why does it have so many different kinds of leaves? Because what ornament, does, is it usually conventionalizes the leaf like the lotus and it transforms it into the fractal of the acanthus. But this is a lot of different conventionalizations or distillations of the idea of the leaf. It became apparent to me that this particular rug, which was made in a desert town in Iran, was made basically in a desert [where] they tap water and they build gardens that simulate nature, and then the rug comes along that simulates the garden that simulates nature and then [that] rug becomes the principal element in architecture or a lobby. So, I see this on the one hand as having the sense of a garden or the cosmicity of a garden but also as belonging to an element of space.

**Misha Semenov:** I thought it was really interesting in the beginning how you spoke about symbolism as a blockade to ornament because, of course, ornament is culturally specific, often, in its manifestation and we have symbols that mean very particular things to a certain culture that might mean a totally different thing across the world. So how do you reconcile universal expression of ornament, obviously, there are certain geometries, certain kinds of repetitions that seem to communicate similar things across the world, but how do you reconcile that with something very specific?

**Kent:** That's fairly simple. Obviously, ornament can do both, right? But what you hear from some people is saying "you need to understand the culture; you can't use a classical building because it is a different culture; you can't use a Persian system because that is a different culture." So, specific cultures are used as an excuse not to use ornament in the present climate of academia. They are used in architecture studios. Then, forget the culture and use what is, perhaps, more important about ornament which is that it is timeless and that it transcends specific cultures. That's the only answer I can give to that. Ornament has its own identity and behavior. And this is why it was important to review the encyclopedias and Kas could talk to you about that. She could seat you with these great encyclopedias that were fashioned in the 19<sup>th</sup> century and point out the unbelievable similarity between ornaments cross-culturally – that ornament has its own morphology independent of culture. And it's that morphology, and again it's something that Nikos talks about because he can talk about ornament without cultural specificity which I love and it works! He says, "ok this is how we can get that into your urban place," and he's not starting it by saying where that urban place is and who lives in it.

**Kas Leiva:** In doing the research that we did, we were looking at the encyclopedias; we were looking at about twenty different cultures at least and a lot of it had to do with geometry, or, more broadly, "does this ornament have nature?" - "does this ornament have leaves?" – "does it have animals?" And the geometry we were looking at – axis, repetition – none of these are cultural elements. These are universal because these are based on geometry, based on mathematics. We were talking about things like leaves, saying you've got conventionalizations which then can be specific to cultures, like the lotus leaf or the acanthus. But you can do the same for today. I think the Oxford Museum is a really great example. You see beautiful capitals that take flora and fauna that they want to share and none of it is necessarily going back to culturally specific flora and fauna from the Greeks. It's more about local flora and fauna and

their taking it and conventionalizing it so it's a new invention of nature but it is still using ornament's more universal structure, geometrically speaking.

**Kent:** Kas, most ornament connects its animistic figures with geometry. In fact, I have never seen a great work of ornament that does not do that, even if has to create the geometry that it connects to and then connect that connection to the actual construction or melody, whichever. I've often wondered why it was necessary to put plants and to put wings in ornament. The ancient Chinese put serpents in them to make them be serpentine. And it was perfectly obvious, by just focusing on that, that the reason why the leaves and the serpentine figures are put into ornament was to add dimensions to it. Most of the pure elements are very starved dimensionally. If you add the animistic tropes, you increase the number of dimensions, the number of spaces. You also do that with repetition which is a time effort. That's why I stressed additivity. So, if you're looking at ornament from the standpoint of additivity, you can dismiss the anthropologist fairly quickly who says, "you don't sufficiently deal with a specific culture." You're dealing with the cosmos.

**Nikos Salingaros:** Kent took two of my conclusions from my talk which is wonderful because we come to the subject from totally different perspectives. The first conclusion that Kent made in the beginning is that ornament is not added on. Ornament is an integral whole part of the entire structure. Ornament has to be one – coherent with the entire structure. It is not added on. It is a part of the entire structure so that there is a union between the large scale and the small scale. That is my conclusion too, so great! And I had a further conclusion that Kent said that if you make that coherence, then the etymology – the anthropology of the ornament is not relevant, really. You want to make it coherent, and the coherence comes from geometrical mathematical rules, so the anthropologists become of secondary importance.

**Kent:** It's very interesting what the anthropologists are doing, as long as they don't say that's the only thing you should be doing. They bring something to the table, but they don't bring the essence of ornament to the table.

**Nikos:** No, and no commissions to create ornament for buildings like you are. And the second conclusion from my talk which was anticipated by Kent is that there is no such thing as modern ornament. Ornament is ornament and it has to be appropriate to whatever you're ornamenting. You can have contemporary expressions of ornament by using manufacturing techniques and

material. But ornament is ornament. It is an expression in small scale with all the intricacy of the scale that somehow ties the whole thing together.

**Kent:** But there is no such thing as new ornament. Right.

**Nikos:** No, ornament is ornament. There is this intricacy of the scale that somehow ties it all together. That's all.

**Ben Northrup:** Do you still subscribe to the distinction between the added and the super-added? The added being the expression of construction and the super-added being the ornament? And I'm wondering if you don't, based on the conversation you just had with Nikos.

**Kent:** I'm comfortable with that concept. I don't use it as much as I used to. Let's talk about Sullivan. Sullivan adds to his construction by exploding his mullions, doesn't he? And then you add the ornament to the exploded mullions. That would come off as super-added. It fits that sequence. Summerson, I believe, made that statement and what he was talking about was, suppose you take a column which is a pipe column and then you fatten it up so it has stasis and it becomes sensual and then you put the capital on it. But that's a three-step action. It was his way of doing it. I think what Summerson didn't do in that very nice paragraph that he wrote was talk enough about the content of ornament which is why I had to go to Plato's Academy because that's where they pinned it down. And I didn't have time to talk about it, but I'll say it quickly so we can get to the other questions. But when I was first teaching ornament to Yale College students – they're smart-ass characters - they always said, "now, what the hell is this?" They want content. They're not going to let anything go by you. And that's a hard question to answer. Does ornament have a content of its own that it was born with and brings with it? And that's why the journey to cosmos was helpful. But you have to understand what cosmos meant or means, which was making visible the harmonic motions. And I think that works. Does that answer?

**Ben:** Yes – that added and super-added ---

**Kent:** I would put those two next to each other and do it both ways. I remember that I didn't satisfy certain content seekers. And I think the content seekers are on our side if you are an ornamenter. And you shouldn't let them down because many of the antagonists against ornament say it doesn't have any content – it's wishy washy; it's artistic flimflam. But it isn't. Not good ornament. So, you have to dismantle or deconstruct those negative critiques.

**Kas:** We have another question from Jeremy; “Geometry and mathematics are universal, but don’t the Chinese and Greek key examples suggest that different cultures make different geometric choices? Can you expand on that?”

**Kent:** Yes, I can. Let me put it this way, as a mathematician and most of us are or we wouldn’t be talking about this. We do math, we do geometry. I see a great similarity between the Chinese key and the Mayan and the Greek key. I see more similarity than dissimilarity. They both use the spiral; they both explore repetition; they’re both very tightly packaged geometric constructs. And yes, they’re different, but I think they’re difference pales compared to their similarities. I think I would answer it that way. China is kind of interesting. Go to China now and you can see the ways their basic key appears all over the place. It appeared at the Olympics, but you can see it appearing in stores and in a variety of curious places. It usually gets mixed up with the Greek key or some other like shape, but it shows, that “yeah, we Chinese sort of know that that’s the one we really did a lot with” but Chinese students don’t end up claiming it, saying “this is ours and nobody else’s.” And as soon as it goes into our culture, we use it. We use it all the time. If you go back to Chang bronzes in the third century B.C. in China, which is quite a bit later than the Cucuteni in the Danube Valley, you’ll see that it is full of Chinese keys. They use Chinese keys as a pattern in their excavated decoration of their bronzes. So, it’s very much a habitual trope in China.

**Misha:** It makes me think of this idea of ornament as language. We titled this talk, “The Language of Ornament,” and it’s interesting to think that we all share kind of the same limited kind of phonemes that the human palate can produce and then we have languages that select from those phonemes and create systems of expression, but a lot of the underlying structure is similar. I don’t know if that’s an appropriate analogy or not because I feel that what you’re saying is that the keys are probably even closer than languages across the human world are, but I wonder if it’s a productive one to think about.

**Kent:** A good thought. I struggle with that because we decided to use the concept of language. I’ve been struggling because a lot of writers about ornament, including Focillon and others, use the language term. It’s a visual language. It’s not a verbal language. That’s where the Gestalt psychology comes in. And where Arnheim comes in who says that perceiving is thinking. So, when you see a particular key of the Chang Dynasty, you know what they were thinking about. Your question was whether one can stay with the concept of language, correct?

**Misha:** It's interesting, given what you said. Imagine you found a scroll from that period and you try to decipher it using ancient Chinese and your knowledge of Chinese is very imperfect and your understanding of that and your emotional connection to the author of that is far inferior to your emotional connection to the author of the ornament of thousands of years ago. So, I think that what you're implying is that it is a language that does not require us to learn the language to understand it. We don't have to know ancient Greek or ancient Chinese to understand at least some level of their ornament.

**Kent:** The inventor of the word “cosmos” was Pythagoras and he was a geometer. He was not an anthropologist. He invented the geometry that we know: point – line – surface – solid. And he also had a monochord and he was subdividing the frequencies. He was able, in 500 BC, to calculate the frequency of a string on a monochord. So, what he was doing was looking at ratios between things to come up with his number four in both systems. The word “cosmos” is really talking about ratios. It's not talking about human behavior. It's talking about natural ratios in the universe that we experience.

**Misha:** We have two really great questions here: “You contrasted many different terms to ornament – symbol, sign, etc., and you talk about ornament as contrasted to pattern or pattern making, or should we conflate the two terms? Or should we distinguish the two?”

**Kent:** I think that pattern is more fundamental to ornament than signage or symbol. Sign, symbol, is usually used to cloud your understanding of ornament. I think pattern does not cloud your understanding of ornament. I think it's much closer to what ornament is about. It could have been that when I talked about sign and symbol, I made it sound like they were valuable ways of identifying ornament. I was actually trying to say the opposite. They take you away from the most valuable understanding of ornament. When anthropologists say you can't understand ornament without understanding the symbol of the specific culture, I'm out of the room because that's not true. You can understand ornament without going into symbolism. You can understand ornament without going into signage. However, that doesn't mean that ornament doesn't engage those two conditions. It does. It can be adopted as a symbol. It can be used as a sign, but that is not a defining feature of ornament per se.

**Kas:** The last part of the question had to do with conflating the terms “pattern” and “ornament” and what the difference between the two is.

**Kent:** Well, the difference between pattern and ornament is that ornament has a content, cosmos, and pattern does not. That's why I spent so much time searching Plato's Academy, to find out what the content was intended to be. Once you grant that it's cosmos, it's more specific than pattern. Pattern is the generality and cosmos is the specific identifier of ornament.

**Kas:** I guess to add to that is to say that part of what allows ornament to play with cosmos, is that cosmos is the part that is dealing with the holder as opposed to a free pattern that does not have anything to do with it

**Kent:** Because when the holder and the ornament are connected, you have a condition of transition right in front of your eyes. It's important that the ornament remain different from the holder in order to maintain the energy of difference which is a property of cosmos. And that's why I focus so much on the concept of gestalt. A gestalt, going back to the flag phenomenon or the figure-ground, is a twoness that establishes a thirdness.

**Trevor:** This discussion about pattern kind of veered into answering my question. In the chat I had asked about the symmetric, the modular nature about all of the visual examples in the presentation and that makes me wonder, does ornament entail symmetry? And I think your answer about adhering to pattern is a kind of super category of which ornament is a type, but in the realm of generic pattern, you can have all sorts of randomly generated – all sorts of patterns but not all patterns are going to function as ornament.

**Kent:** Symmetry is very interesting. You can see how evident it was in the keys and it's also evident in repeating structures. There is an ornament in music called a "turn." Music has named all its ornaments. Architecture has too, but it forgets what they are. You find them in strange places as having a primary meaning like a palmette has a primary meaning which is ornament that is supposed to be like a lotus leaf. That's a secondary meaning. Symmetry patterns or theories of symmetry are essential to understanding geometry. You would agree with that. Geometry plays a very strong role in ornament. It's usually paired with an animistic trope so you get a Greek key and a leaf. That shows up immediately in Owen Jones's treatment of Greek repeating ornament, but to do the geometry side you have to know your symmetries. It's very powerful and limited. There are only twenty-seven symmetries in two dimensions. It belongs to the idea of a final set or an alphabet.

If you say a fractal is an ornament and don't qualify that statement, you are actually doing a disservice to ornament. What you should say is that it's a figure of ornament that becomes a

full ornament when it encounters its holder. But ornament cannot be an autonomous figure. That's a big mistake that's made in the academy. I got a phone call from an Italian architecture school a few months ago and they wanted to Zoom me in to make a critique of their ornament that they had assigned. They had given their students pieces of clay and asked each one to make an ornament. I said I couldn't join their review board because they were not doing ornament. So, they invited me to tell them what ornament was and they agreed they would change their curriculum. And that's why it's important to be rigorous in discussing ornament. You have to be rigorous. It's been shattered by being compared to too many things without giving its real existence and performance front and center. That's why, when I started this course to these feisty undergrads, they had to accept that ornament absolutely must be connected to something being ornamented; it could never become autonomous.

**Kas:** I think it goes back to the definition of cosmos and what it means to be cosmological. Cosmos has to do with relationships between things and having a stand-alone object or piece of art is not cosmos. It is not connected to or aware of an object the way that ornament is and that's what makes it so unique.

**Kent:** One of the nice things about ornament is that it can accept a tough definition. It thrives under a tough definition. And as far as the Italian school was concerned, I gave it a tough definition, "this is axiomatic, A B C D." They did another project and the ornament actually appeared. If you go in and say, "let's leave this thing loose," it's no good. And that what's so important about Kas reviewing the *Grammar* and Dolmetsch and other people and pointing out the use of tropes. It's a real thing. Ornament is actual.

