Owen Jones and the Conventionalization of Ornament

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OWEN JONES AND THE

CONVENTIONALIZATION OF ORNAMENT

by

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THE ORNAMENT, DECORATION AND COLOR OF OWEN JONES: STUDIES IN THE ART AND SCIENCE OF ARCHITECTURAL DESIGN. © 1988

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PREFACE

Twenty-two years have passed since I first wrote this text at the request of Yale University Press. They wanted a 300 pp manuscript, and I gave to them 410 pages and about 160 color illustrations largely chosen from the Victoria and Albert Museum’s Prints and Drawings Department wonderful collection of Owen Jones water-color and gouache designs. The book did not fly. I have, in returning to it after all these years, tried to keep to the original text as far as possible. I have excised the old Chapter Five: “Conventionalized Flat Pattern Ornament” which is really a book in itself at some 76 pp. Finally this retitled manuscript is now about the “required” length of 300 pp!

The book has a major unspoken debt to Dr. Michael Darby, the pioneer in Owen Jones studies. I have tried to concentrate on what I feel is the essential focus of Jones himself, ornament. In that sense I differ from Darby and also from Dr. Carol Flores who, too, is in Darby’s debt. Both these authors look at the whole career of Jones as architect and theorist, and at a biographical interpretation of his achievement. I focus on the history of ornament and on the aesthetic of repose as essential to the study of Jones and essential to an estimation of his significance and achievement. Flores’ book extends Darby’s groundbreaking dissertation. I am indebted to her for my attribution of V&A designs to Eynsham Hall following her work at Reading University and the designs there for James Mason’s Eynsham Hall. I had seen these designs in 1983 but had not put two and two together. It is wonderful to have this major introduction by Flores available for students and scholars. But I hope that my contribution to Jones scholarship dives into deeper water and will encourage a more comprehensive study of Jones and his cultural contributions by future scholars.
I am indebted to so many others besides Darby and Flores that I am at a loss to remember them all. To my Professor William H. Jordy, I say thank you for passing on to me the torch of studies in the Grammar of Ornament in 1975 which he rightly insisted on as the focus of my dissertation under him.

To Prof. Kent Bloomer, a big shoutout for all the hours spent discussing and teaching ornament together. These are among the most significant moments of my life. How could I ever repay you? To all the Hardy family of Shenley, Hertfordshire I give my love and gratitude, especially to Jack Hardy and his parents. There is more to scholarship than books: there is the humanity and companionship that make life worthwhile and this you gave in abundance. To all the librarians who gave me a home at Rhode Island College, and especially to the Director of the James P. Adams Library, Hedi BenAicha, who encouraged me to dust off and to digitize the manuscript and make it available on our Digital Commons, I offer a profound appreciation. To the staff of the Prints and Drawings Department of the Victoria and Albert Museum, I thank you for those rare privileges allowing me to photograph most of the Jones collection of designs in 1979 that have inform my thinking about Jones for the past 35 years. I especially thank the wonderful Chrysanthe Constantouris of V&A Images for permission to publish from the V&A collection. To the librarians at the Library of Congress, the Boston Public Library, the National Art Library, the Providence Athenaeum, the John Hay Library, and the British Library, I thank you in a way that is unusual for a scholar: I too have become a librarian, so my thanks is sincere at the very basic level of participation in your service. Finally, to my parents and to my beloved wife, how can I really thank you? For it is really a matter of a life lived with and because of you that this work has come into being.
Introduction

Wisdom is the principal thing; therefore get wisdom: and with all thy getting get understanding.
Exalt her, and she shall promote thee: she shall bring thee to honor, when thou dost embrace her.
She shall give to thine head an ornament of grace: a crown of glory shall she deliver to thee.
(Proverbs 4: 7-9)

Solomon, the most favored of kings, perceived something quintessential about ornament: that ornament was a sign of Wisdom, that deriving from God it was essentially supernatural, and that it was a "crown of glory". Clearly, ornament contains the wisdom that makes grace possible by communication and the preservation of the memorial. Solomon thus indissolubly links grace and ornament, the lily and gold. Even earlier than the mid-eleventh century B.C., during the reign of King Minos, Daedelus would build a golden honeycomb in the vaults of the temple of Aphrodite at Eryx "in exquisiteness" according to Ruskin. Daedelus, like Hiram of Tyre in Solomon's time, knew "the entire art of minute ornament" (Ruskin, Aratra Pentelice, 179). Gold and ornament are identified together in both the Old Testament and the Koran. David tells the women of Israel to take off their golden ornaments with the death of Saul. And Jeremiah mentions that God spoke in terms of ornaments of gold. The entire interior of the Temple of Solomon was sheathed in ornamented gold. Grace in the form of a cloud took possession of the Temple on its dedication.
Pascal, the great French Baroque mathematician and theologian, writes about grace in his *Pensées* and tells us much therefore about ornament. "Thus in grace," he observes, "the least action affects everything by its consequences; therefore everything is important" (§505, 139). This statement anticipates scientific "chaos theory". It tells us how important ornament is for democracy. Today, in the Oxford English Dictionary, ornament is still a synonym for grace: but for a reference to the supernatural quality of grace, Pascal provides a crucial insight: "the two fundamentals; one inward, the other outward; grace and miracles; both supernatural" (*Pensées*, §804, 238). From Neolithic times, humans have sought to distill their knowledge by means of symbols and the picture language of ornament. Originally, these symbols of the cosmos and terrestrial nature had magical properties which helped to control, influence, predict and propitiate life. Ancient ornament was always tied to magic, mystery and symbol. It was always supernatural and represented Ancient man's awareness of supranature, deified, mythologized and embodied in civilization as theology and religion. When the Pharoahs and Akkadian kings deified themselves, ornament became political. Long before the appearance of the alphabet in the sixteenth century B.C., ornament had written its history in the temples, tombs and palaces of the Ancients. Ornament was one of man's earliest forms of truth, the wisdom of which assisted in the birth of civilization.

The ornament, decoration and color of Owen Jones partake of a magnificent tradition. Jones took this Ancient Tradition of ornament and made it modern. But he never in his modernism lost sight of the Ancient. What distinguishes his modernism in the nineteenth century from the Modernism of the twentieth century is precisely this commitment to the past, to the whole world of history, and to what Martin Bernal calls in *Black Athena*, the
"Ancient Model" of history. All of Jones' formal principles of design are based on history and nature simultaneously. The Ancients derived their ornament from nature: Jones derived his propositions from historical ornament and proved that these same principles were to also be found in nature. The organic ornament of his practice derives from his theory and in this alone Jones is Modern. There is direct correlation between the authenticity of Jones' modernity and the theory of organic conventionalization which informs his practice. But Jones' agenda is rich and complex, cultural as well as civilizing, Oriental as well as Occidental, Ancient as well as Modern, concerned with being as well as becoming. He gave richly to the tradition of ornament. His vision of modernity was the sustenance and nurturing of the Ancient Tradition into the future, thereby enlarging rather than diminishing our inheritance. Thus in a recent book on ornament, Smeets writes that "Ornament finds its roots in magic and symbolism." Therefore, with intimate relations to pre-history, Solomon could correctly observe that ornament is fundamentally a matter of grace, that it maintained the mysticism and magic of ancient times. As knowledge, it is indeed glorious.

Ornament is therefore more than an adornment: it is truth. Its application in architecture recently has resulted in the divorce of ornament and utilitarian structure. We no longer understand today that the art of ornament constitutes the art of architecture and that it is the principal reason that simple utility can be endowed with higher values and a truth system. Dignity of structure resides in the ornament and decoration of the host. The purpose of structure rests in its embellishment which provides meaning and a value system to utility: ornament, as we shall see in successive chapters of this book, is a language of grace and wisdom; utility alone
cannot generate either meaning or truth. To quote Pascal facetiously; "If you care but little to know the truth, here is enough of it to leave you in repose" (*Pensées*, §226, 63),

Ornament has a particular aesthetic in the reality of repose, a feeling of mind which is more than an aesthetic and more than a metaphysic. Pascal knew that truth generates repose. So too does ornament, as grace, wisdom and truth engender serenity, peace and the inward feelings related to the spirit and the spiritual life. Ornament has therefore a profoundly spiritual function, and this stands at the root of its art; to uplift and encourage perfection; to delight and beautify; to enrich our lives with truth and grace; to satisfy our souls with wisdom and repose. One must measure the loss of ornament in Modern architecture in cultural and spiritual terms.

Owen Jones understood, as a modern in the nineteenth century, much of the plight of our century. His theory of ornament is both instructive and dangerous. Therein lays one of the principal fascinations of ornament's rationalization. Perceiving the loss of meaning in ornament with the Reformation, Jones did nothing to restore the balance. His theory of conventionalization emphasizes, rather, the formal characteristics of ornament: truth in ornament is the truth of sensation; sensation generates repose, not meaning. Jones threw in his lot with science, with technology and business. His influence was so enormous as to completely derail the content of ornament, the value system of truth. After Jones, ornament became the mere manipulation of forms in a decorative field.
Moderns discovered the implications of decoration and ornament as theorized and practiced by Jones. In their architectural revolution they eliminated ornament by eliminating decoration which distributes ornament. As a modern himself and a fundamental influence on both Wright and Le Corbusier, Jones must share in the blame. But Jones preserved much that Moderns after him also wanted to eliminate: for example, history, and nature, and the Creator. Jones also thought he was preserving ornament for the future. He would have been horrified at its banishment.

Jones is too essential a figure in the history of ornament to neglect by lack of scholarship on his ornament and theory. Rather, the key for the future is in a better understanding of this brilliant precursor of the Moderns so that we may learn from his mistakes and rejoice in his achievements. We may beware his influence, but his own ornament has much to teach the present age of budding ornamentors. Above all, Jones kept alive the essential tradition of repose in ornament and architecture. We are in desperate need of this spiritual tradition of repose in our age. It is possible to rebuild the language of ornament so that grace, truth and wisdom shine in our architecture once again. The future may once again enjoy the art of architecture and the enrichment of culture that the art of ornament will bring to our lives. The purpose of this book therefore is to contribute to the future revitalization of culture by studies in the art and theory of one of mankind’s oldest visual languages: ornament.

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Chapter 1: Ornament and Ornaments in Time and Society

Towards a Definition of Ornament

“The Bible says That Cultivated Life Existed First. Uncultivated Life comes afterward from Satan's Hirelings. Necessaries, Accomodations & Ornaments are the whole of Life. Satan took away Ornament first. Next he took away Accomodations. Then he became Lord and Master of Necessaries.”

William Blake, "Annotations to Reynolds", 1808.

Ornament is not a luxury: it is essential to life. Its banishment in the twentieth-century has impoverished not only our individual lives but also our culture and civilization. There are no easy reasons for the demise of ornament as a tradition in the visual arts. If one believes with Blake, one can possibly recognize the complexity and immensity of the loss. But one can also argue as does Brolin in his recent Flight of Fancy that the reforms in ornament of the nineteenth-century are largely to blame and that modernists simply took the aims of these reformers to their rational conclusion. Brolin claims that ornament and decoration are synonymous according to the Webster Dictionary: indeed Noah Webster is as confused as many authors are on this point. The Oxford English Dictionary offers a clearer distinction between these two words: essentially ornament refers to the thing acting as an embellishment and decoration refers to
everything which functions as embellishment, which may or may not include ornament. Ornament refers to the specific visual entity and decoration refers to the distribution of the ornament in architectural space. Decoration has therefore a different agenda than ornament and it is dangerous from an intellectual stand-point to confuse the two terms.

The whole of this introduction will attempt to make clear the difference between ornament and decoration as well as to offer theoretical bases for a proper understanding of them both. Only after defining the parameters of the subject can we turn to the extraordinarily rich and comprehensive art of one of the greatest ornamentors of all times, Owen Jones. One more point is worth stressing: this book is a history of a vital moment in the nineteenth-century. Beyond the introduction it is not a theoretical treatise. There will be no criticism of Jones's ornament from a twentieth-century stance. However, there is much in Jones which can teach us about the essential mystery inherent in the ornament of the past and evident in his own ornament.

**Ornament and Language**

Ornament is a visual language and intimately related to the structure of human languages. "First, there is mere gesticulation; then rosaries or wampum; then picture-language; then hieroglyphics, and finally alphabetic letters. These all consist of a translation of man into nature, of a substitution of the visible for the audible." So writes Coleridge the critic in his essay "On Poesy Or Art" which asserts that in communication, memory plays the most important part. Picture-language, or ornament holds the mid-point between the most basic form of communication, gesture -- such an essential language in drama--and the most abstract of the language systems, the alphabet. Ornament shares in the
qualities of both the ceremonial wampum beads and the rosary upon which the names of
God, or prayers can be cited, recited, and chanted, and the hieroglyph with its
pictorial abstraction. Ornament is further conditioned by the progressive tendency
towards abstraction which languages take visually on the one hand and by the memory
so necessary for the meaning of ornament on the other hand. Ornament is
related to the symbol structure of language, in other words, pointing beyond itself to
its meaning.

Since ornament is a part of the structure of human languages it is possible to
assert that the meaning can never be known in its entirety, just as the words of a poem can
never be thoroughly comprehended even by the most astute critic. Where meaning ends
for the viewer mystery takes over and memory yields to imagination as part of the essential
communicative experience. An analogy for this assertion can also be found in Coleridge's
"Poetry and Religion": "both poetry and religion throw the object of deepest interest to a
distance from us, and thereby not only aid our imagination, but in a most important manner
subserve the interest of our virtues; for that man is indeed a slave, who is a slave to his own
senses, and whose mind and imagination cannot carry him beyond the distance which his hand
can touch, or even his eye can reach."²

Ornament relates both to poetry and religion, and in its function as a human language, to
that which exists beyond itself and which needs the imagination to bridge the gap between
thingness and ultimate meaning. As a visual language, ornament has had a traditional
role in furthering a transcendent experience which has enriched human life. Both Christian
and Islamic ornaments are rich in their vocabulary of forms pointing beyond the material
facts to a transcendent view of heaven or the *alam-al-mithal*. Since ornament is a part of the language system it has and must have the symbolic function of pointing beyond itself to its meaning. Much of the meaning remains therefore occult, although there is a class of ornament for which the meanings are more transparent.

**Towards an Iconography of Universal Ornaments**

There are a few ornaments which have commanded the respect of artists and architects over the ages, from one civilization to another. The life of these ornaments reaches from the dawn of time to the twentieth-century and would form an essential part of any revival of serious ornament for the twenty-first century. A civilization contributes only a few of these ornaments during its life, but once these ornaments enter the vocabulary of the visual tradition they are adopted by successive civilizations with slight conventional modifications. These ornaments may be described as universal as opposed to the many local ornaments a civilization creates but which die with the passing of that civilization. The following is a list of these ornaments with an attempt at deciphering their meaning. The universal ornaments are divided into two groups: cosmic ornaments, and terrestrial ornaments.

**The Cosmos**

The *star* is one of the earliest of ornaments. Five-pointed in Egyptian ornament and six-pointed in Jewish ornament, the star also includes the seven points of Solomon and the eight points of its rays in Islamic ornament. An emblem of intelligence, generosity and light, the star has long been associated with architecture as an emblem
of heavenly space and more literally as the vault of the sky. Its mystical association with the ceiling is described by Lethaby in his *Architecture, Mysticism and Myth* of 1892. Early myths deal with the relations of Earth with the twin star system of Sirius, the closest and brightest star to our sun and only six light years away. The earliest records of civilization deal with the polar confrontation between the priest and the architect which is resolved by the intervention of Isis from Sirius.

The chevron is another extraordinarily old and persistent ornament. An emblem of the River of Life, the transmission and transformation of knowledge (light), and the earliest symbol related to Man (the constellation of Aquarius), the chevron has been adopted as an ornament by almost every civilization. Popular and almost exclusive as an ornament to Primitive art (especially Polynesian and African), the chevron was ubiquitous in the ornament of Art Deco during the 1920's and 1930's. The emphasis on catenary curves, calculus, electrical energy and its transmission, points to the increasing relevance of the chevron for the millennium. It mysteriously persists as a symbol of its age, and indeed of all ages.

The spiral is an ancient ornament and is based upon the circle, the square and the triangle. First recorded in civilization during the Egyptian period, the spiral represents the unfolding of creation, the life-force of the seed (DNA), and is specifically related to the hemp plant in its suggestion of coiled rope. It is an emblem for the silver thread that unites earthly and heavenly (or spiritual) life. It is also a symbol for the loss of the original paradise on earth, whether the Biblical Garden of Eden or the Finnish Kalevala.
A cosmic symbol uniting air and fire, the **golden arch** is a goldsmith's ornament frequently adopted by artists for painted decoration. While an ornament in itself, as a motif, it belongs to the trefoil and quatrefoil of the Gothic period. Being the bridge of light between heaven and earth, it may be identified with the rainbow, a gift of God promising future continuity of life on earth.

**Emblematic of the intersection between the warp (vertical) and the woof (horizontal), the cross** is an ancient ornament associated with the oldest craft of weaving. Symbolic of the earth (when placed within the circle) and of the salvation of mankind by Jesus Christ, the cross may be employed as a singular ornament, or in a field where the void is the cross and the figure is the swastica of good rather than evil fortune. The cross is also one of the earliest ornaments to be structuralized, forming the plan of Old St. Peter's in Rome and remaining the typical shape of the plan for Christian churches and cathedrals until quite recently.

An ornament throughout the East and Celtic Ireland, emblematic of good fortune and the Wheel of Fortune, the **swastika** is an activation of the cross and is integral to the nature and quality of the heart. As such it is an emblem of the emotions. Maligned by the Nazis who reversed its direction from right to left, this ancient ornament has fallen into disrepute. Its reintegration with history as the true symbol of good fortune depends upon the recognition that universal ornaments which are deliberately corrupted from the original have the power to lead civilization astray when systematically employed for evil purposes with respect to territory, power or treachery. The fate of the swastica
should warn those who attempt to create an atheistic ornament that by so doing they imperil the health and vitality of civilization.

Emblematic of the duality or triplicity of the cosmos (and by extension the earth), the traditional *yin-yang* ornament reflects the division of reality into its polar opposites: positive and negative; thesis and antithesis; and male and female. Red and black are the traditional opposites in the color of this ornament. But black in this case is symbolic of green, and red is relative to the color with which it is juxtaposed. In this case red is emblematic of the courage, virility and life which emerge from the chaos of negativity and death.

An ancient Egyptian ornament, the *diaper* can be employed as an ornament in itself or a means to distribute other ornaments. As an ornament, the diaper or grid represents the *ma'at* or force field which, the ancients believed, related the events in one part of the diaper to the rest. The diaper therefore has its origins in the miniaturization and application of cosmological ideas to the specificity of place and space. Notably the diaper was the only ornament which Le Corbusier accepted although his use of it remained more decorative than ornamental.

Finally, the *fret* is an abstract border ornament which terminates the decoration in an entirely geometric pattern. Common in simple forms to Egyptian ornament, the fret has been adopted by almost all the great styles of ornament throughout the ages. It spread from Egypt in northeastern Africa to China in northeastern Asia. It has been especially popular to the Classical tradition of ornament and widespread in Mayan ornament. It also embodies a system of Pythagorean numbers which have mystical significance.
What all of these cosmic ornaments have in common visually is a reliance on simple and severe abstraction. Many are related to simple mathematics and are thus the earliest effort of humans to turn primitive science into art. Furthermore they embody a primitive form of transcendent knowledge about the universe translated into a specific, material form. Many of these ornaments predate the dawn of civilization and are thus among the earliest records of human knowledge and consciousness.

**Terrestrial Ornaments**

As mankind concretizes his experience of the cosmos in the specificity of individual ornaments and gives a materiality to the most abstract of experiences, humans turn to their immediate context and begin to spiritualize nature. With few exceptions the universal ornaments which deal with life on Earth are based upon the human experience of nature. For the early ornamentors, nature was seen largely in mythopoeic terms in which gods or God resided in the individual forms they adapted to decorate their architecture or the utilitarian objects of their homes. Nature was therefore a spiritual one unlike the de-mythologized, scientific nature of today. The individual forms selected from nature by the original ornamentors are shrouded in a mystical past and are the products of thought which has unfortunately been lost. Some of the richness of primitive thought emerges in the attempt to discover the iconography of these universal terrestrial ornaments.

The rosette is an Egyptian ornament symbolizing the signs of the Zodiac and the constellations. Thus it relates to time: the months of the year, the division of the hours of day and night. Later it could embody the twelve tribes of Israel and the twelve Disciples of Christ. More recently it relates to the division of the foot into inches and the bonding
sequence of the DNA. Based upon the lotus flower, the rosette is largely a metaphysical idea related to the perfection of man and his election into heaven.

The **lotus** is another Egyptian ornament symbolizing Upper Egypt and the power of its Pharaoh. If the spirit of animals and shepherding belongs to Abel (the Shaman), and the spirit of craft and the city is representative of Cain, the spirit of vegetation belongs to Enoch or Kidra. Reflective and meditative contemplation on the mystery of creation embodied by the lotus yields the realization of the supreme beauty of the spiritual realm in the material universe. Today the lotus is an eastern rather than a western ornament, the Blue Lotus representing the concretizing of the spiritual in the material. Its iconography in the west has been appropriated by the rose.

The **papyrus** is an ornament associated with Lower Egypt. It was used to decorate the capitols of Egyptian columns as well as the prow of Egyptian boats. Emblematic of structural form and with the rituals of death, the papyrus provides the "tabula rasa" of paper for the hieroglyph, and may be related to the form giver Ptah as the hieroglyph is related to Thoth.

An Assyrian ornament borrowed from the east, the **Tree of Life** may be associated with the Garden of Eden where it became the forbidden fruit after the fruit from the Tree of the Knowledge of Good and Evil had been eaten by Adam and Eve. Emblematic of Paradise, the Tree of Life remains an elusive idea. As a tree it is associated with architecture and with the development of the alphabet.

Symbolic of the will to life expressed by the Tree, the **continuous stem** is a fluid arabesque design which can cover both regular (border) and irregular (spandril) shapes. Employed
especially in Persian and Indian design, the continuous stem is a key component of the life and bloom of these decorations, activating the surface as it does with undulating, lyrical curves. The discontinuous stem generates an asymmetrical pattern. Primarily employed by the Chinese as a second ground, it stands between the motif and the field as a third layer of visual information.

The Vitruvian Scroll was popularized by Greek ornament and adopted as an iconic Roman ornament. Originally, however, the scroll is an Egyptian ornament with wonderful abstractions which suggest not only the waves of the Nile or the Mediterranean Sea, but also cosmic waves of energy by virtue of its association with the spiral. The Vitruvian Scroll links up with the spiral and the continuous stem in one of the principal families of ornamental form, relating the world of nature on earth with cosmic nature. A further bond between heaven and earth is the correspondence between the cosmic chevron and the earthly Vitruvian Scroll. A difference in shaping rather than structural form underlies the correspondence, the difference primarily of the curve and the straight line. In its celebration of the curve, the Vitruvian Scroll hints at its cosmic derivation (curves are celestial in China) and at the same time describes its relation to an ideal version of the ocean through a regularization of the waves.

An ancient symbol of unity in multiplicity, and multiplicity in unity, the pomegranite is associated with the Egyptian god Amon and with Assyrian rites. Decreed an ornament of the hem of the ephod for His Temple (Exodus 28: 33) Jehovah linked the pomegranite to the bell an alternating pattern of an ABAB rhythm: these are two ornaments which act as living statements concerning His Power and Glory. Implicit in the pomegranite are two
essential lessons of nature: (i) that the seed contains within itself both the tree and the fruit; and (ii) that the fruit is the reason for the tree and the purpose for the planting of the tree by the Gardner and Creator.

Blessed by Jehovah with the pomegranite as one of His ornaments, the bell itself defines one of the original meanings of ornament as a "useful accessory". The bell is related to Time in that its sound punctuates and counterpoints the continuousness of silence. The bell also signals the transformation of earth from its present reality into a heavenly reality. The Mandinkas of West Africa have a legend that when the bell is rung without sound, then the transformation of the reality of earth to a heavenly reality will be complete. The bell, the book and the candle also emblemize the Magi and the Order of Melchizidek to whom Abraham gave tithes.

The anthemion is a conventionalized Greek ornament, adapted through Assyrian variants from the original Egyptian lotus (see Alois Riegl, *Stilfragen*, 1892). Earlier, nineteenth-century writers such as Owen Jones in his *The Grammar of Ornament* (London, 1856), thought that the anthemion had been conventionalized from nature and the honeysuckle flower, but this opinion was overturned by the turn of the century theorists of ornament such as Riegl and Goodyear who do not, however, make clear the intermediary role of Assyrian ornament in its evolution from the conventional lotus. Conventionalization may be directed either at nature, or at ornaments themselves conventionalized from nature, and may be conservative or radical in its subsequent tradition. The anthemion does not have the religious iconography of the lotus; its purpose
was aesthetic and its function was to grace the surfaces of vases and temples as an element of beauty rather than knowledge.

Frequently employed in Greek ornamental borders as a link between anthemions, the palmette spread through the Hellenic civilization. The palmette became dominant throughout northern Turkish, Persian and Afghan culture as an independant ornament. Exotic versions of the palmette in the East recall flowers aflame with light: flowers of the ideal rather than the natural garden.

The acanthus is a universal Greek ornament symbolizing the spirit of vegetation. Out of the death and decay of winter comes the rebirth of spring from the earth which is itself an emblem of the perpetual cycle of death and life. The acanthus thus emblemizes the greatest paradox of life: of good emerging from evil; of life emerging from death. The acanthus is also an emblem of the color green which represents the median color, the height of solar activity and the color of most vegetation.

An ornament emblematic of the elect of heaven, the rose is also a symbol of female virtue (Dante's Beatrice) and the ultimate secret of the Sufi garden of black light. The rose has been traditionally the symbol of divine beauty in the natural order. The mystery is that so much sensual beauty is associated with the rose. Both smell and sight are involved in its appreciation. The five petaled Tudor rose introduces the subject and symbolism of color in the rose: red for love, white for purity, and yellow for friendship.

The egg-and-dart has a dual meaning and may derive from the temple sacrifice and feast as George Hersey believes. The egg is a symbol for the mystery of creation and has a
dual nature -- a revealed and a hidden agenda. The mystery of the egg is that it takes
two forms of life -- that of itself, and that of its parent -- to bring into being the social
independence, mobility and opportunity for freedom that significant life requires.
The mystery of the egg is precisely its transformation from a dependent *gestalt* to the
freedom of space identified with the bird. The dart symbolizes the power of death: together,
the egg and the dart emblemize the reality cycle (see Feather).

The *ziggurat* symbolizes the power of the square in motion, energizing each side of
the square with the chevron. The *ziggurat* contains the secret of the calendar (time
as a repeatable event), the hierarchy of planetary (cosmic) powers, and the seven sacred
colors. Contained within the ziggurat is the cross and the chevron. The ziggurat is a
compound of ornaments and emblemizes in its hidden theology, the seven days of the
week, the seven virtues, the seven symbolic essences of architecture (see Ruskin),
the seven pointed star of Solomon, the seven chakras and the seven prophets.

An ornament which symbolizes the transformation of the deadly scorpion into the eagle
of St. John and finally into the Phoenix of paradise, the *feather* was prominent in Egyptian and is
essential to Moorish ornament. The feather also refers to the Simurg (see Attar, *Parliament
of the Birds*) and the Roc (see Lane's trans., *One Thousand and One Nights*) and is an emblem
for the three sacred animals -- the bird, the dog and the stag. The Beni bird of Africa has long
been associated with the "son of man" and the Hopi bird is blessed with the caligraphy "Allah"
on its body. In the west, the sacred bird is the sparrow waiting for Joseph. Ruskin, William
Morris and the architects Philip Webb and C.F.A.Voysey attempted to revive the bird as
an ornament from the mid-nineteenth century to the early twentieth century.
A very complex border pattern, the interlace has been employed in Coptic (Ethiopian), Celtic, Viking and Moorish ornament. Based upon diaper patterns superimposed upon one another, the interlace defies the clinical and Pythagorean definitions of dimensionality, being neither perfectly flat nor yet three-dimensional. The interlace depends rather on fractal mathematics which describe the reality between the dimensions proper.

The Chinese cloud is a symbol of the heavenly realm as well as the mystical world of the Second Ocean. The Chinese cloud frequently accompanies the celestial Green Dragon, and its curves are representative of heavenly power -- "straight lines lead to trouble" (Chinese proverb). The cloud is symbolic of heavenly authority which the Chinese considered supreme -- "As above, so below" (Chinese proverb).

The trefoil is a Medieval ornament combining the foil or the golden arch in a Pythagorean synthesis of the first three prime numbers, representing the monochord's tonic, octave and 5th. The conventional hierarchy of Father, Son and Holy Ghost emphasizes, as Christ does, the importance of the Note, above all, and then the 5th which represents the Holy Spirit or the Comforter. The color of the trefoil is yellow, also the color of Christ and the tribe of Simeon. The Medieval ages produced four universal ornaments. The trefoil is especially related to the fleur-de-lys (note that in the trefoil's primitive form it represents the clover) and obviously to the quatrefoil. The Tudor rose is a development of the number 5 and completes the universal ornaments bequeathed by Gothic Europe: more than any civilization since the Egyptian and the Greek. The importance of the
trefoil for the correspondence psychology of Medieval Europe cannot be stressed enough. Symbolic significance was seen in every detail of Medieval life.

The quatrefoil completes the original four Pythagorean numbers which yield FORM. The Egyptian potter God Ptah is the fore-runner of the Greek Jupiter, and is the god of form for both civilizations. Ptah is the original architect: the consonants P and T are essentially form making sounds; the T yielding the T-square and right angle conjunctons; the P yielding the circle and benevolence of God. Form is essentially spiritual for Medieval life -- the word made flesh. The power of four optimizes the primary variation needed to maintain the paradox of unity in variety and variety in unity which we find in Nature. The four-leaf clover is a symbol of good luck: the ultimate paradox of form is that salvation is to be found in the flesh, the form of corruption and death. The quatrefoil is also related to the four petal daisy, an emblem for the pearls of religion.

Emblematic of the Virgin Mary and deriving from a conventionalization of nature's lily, the fleur-de-lys is one of the few floral universal ornaments to appear since the anthemion, and is very close to early palmettes. An exquisite ornament the emblem recalls the life of Anna her mother, their own lives weaving the temple veil, the miraculous birth of Jesus (Isa), the teaching and death of her son and her ascension into heaven. The term "Merry England" refers to Catholic England which celebrated the Virgin and the way of life Pugin wanted to revive in his architecture. The ornament is also related to the trefoil and by extension to the Medici's emblem of the three balls or circles which is also related to the trefoil.
A symbol of love and charity, the most potent force in the universe, the heart is by extension a symbol for Friendship, Fellowship and Brotherhood. The heart's color is red, the red of Abraham and Michael and not the red of anarchy. The heart is also part of the Sufi emblem where the heart is given the wings of grace or the Comforter. The heart is semiotically related to the hearth, the center of the northern European home. A symbol of the five suits of the mystical Tarot (and of playing cards where it gives its own name to the game of "Hearts"), the heart is essentially an emblem for intentionality or hima, a root for alchemy.

Understanding derives from the heart and not the intellect: the greatest good and evil are therefore products of the heart. The heart is fundamentally affected by the primary chord and harmonic sequence of 1, 3, 5, 8, 13 etc., and consequently to the spiral and other harmonic forms based on the golden section.

The tear or paisley is the symbol of the Mercy of God. Ar-Rahman is the first of the one hundred tiers of Allah and emblemizes the water of knowledge (see Chevron) which is poured from the vase of the celestial maiden. The gift of mercy brings both truth and friendship to man. In China, Kuan Yun is the bodhisattva of Mercy and a female goddess like the "Star" of the Tarot which is a symbol for the constellation of Aquarius. The tear is related to the pearls of the Koran which reveal the beauty inherent to suffering. A symbol of the mystical third ocean, of Karl Popper's World III of objective knowledge, the tear may also be associated with the Jasmine which the prophet Mohammed saw after his vision of heaven. The tear he shed over the vision relates the tear to the symbolism of the rose (see also lotus and rosette) and to the ruby, wine and daisy of Sufi mystical poetry.
Common to the paisley pattern and to Moghul design in India, the tear may also represent the ornamental comma, the raindrop and the numbers 6 or 9.

The leaf is related to the acanthus as both are emblems for the seasonal passage of time from spring to winter. Life, death and the triumph over death by spring are intimated by the division of time into four parts. The leaf is an emblem for all leaves, especially the rose leaf. One of the secrets to life and integral to human existence as the producer of oxygen, the leaf symbolizes the color green. The color of ecology, Islam and Kidra, the leaf is identified with the highest productive activity. A symbol of the Garden of Eden and Mohammed's vision of the sacred gardens of paradise, the leaf is related to the Tree of Life, and the sacred olive and date. In the nineteenth century the leaf became an emblem for all the laws of design related to the conventionalization of form. Note that as the most persistent and universal of ornaments (see Owen Jones, *The Grammar of Ornament*), the leaf is related to the tear and other ornaments constructed by the golden section spiral (i.e., anthemion, Vitruvian scroll, continuous stem, palmette, the heart).

The tartan symbolizes the cult of the warrior and a system for the instant recognition of friend or enemy. The tartan partakes of the iconology of the diaper but it offers a further gestalt in being a series of significant dualings of the diaper which allow for multiple pattern differentiations in which line and color choices are crucial for recognizable patterns. The gestalt of the tartan relates to genetic history and the clan tree; as such it is related to those ornaments dealing with the Tree of Life -- the continuous stem, the leaf, the acanthus leaf, the bell, etc. Originally woven, the tartan reflects the importance of
ornament in the visual history of a people in that weaving is traditionally considered the oldest craft (G. Semper). Introduced by Frank Furness into American architecture, his pupil Louis Sullivan made the most of this principle of geometry in his ornament.

There is another class of ornaments which also have an iconography: geometric ornaments. Most frequently employed in Islamic ornament, geometric ornaments were also very popular during the Victorian period. The universal cosmic and terrestrial ornaments begin to wane during this same period, although Jones was insistent in his use of the anthemion. The fault must be laid at Jones's door because he proscribed copying from historical sources and believed that only the principles governing historical ornaments were to be employed by designers. Blake's rule for learning art, "copy forever" was dismissed in the search for a modern Victorian style based upon the forms of nature.

**Ornament and nature**

The rosette, lotus, Tree of Life, pomegranite, anthemion, continuous stem, acanthus, palmette, fleur-de-lys, feather, rose and the leaf are all universal forms of ornament based upon nature. Most of these ornaments have transcendent meanings but equally important the spiritual meaning is also concretized in the materiality of the ornament. If these ornaments point beyond themselves to categories of thought which transcend material existence, nevertheless ornaments like the human body have the power to make these spiritual meanings evident in material form. This duality of function with respect to meaning is an essential quality of the language of ornament and seen very clearly in the ornaments which derive from nature.
Early on in the life of civilized man nature had a mystical and spiritual dimension which has been lost with the increasing scientific explanation of our terrestrial surroundings. Science has de-mythologized and de-spiritualized nature: rivers are no longer gods and lightning is no longer the weapon of Jupiter. The Romantics tried to recapture some of the essential mystery of nature in their transcendental theories and Coleridge is a prime example of this approach. The Romantics influenced the entire nineteenth-century with their ideas and Owen Jones fell under their influence in a broad and cultural way. To repeat, however much ornament points beyond the facts of material existence to a transcendent vision of life; nevertheless it also concretizes the spiritual in material form in much the same way as the human body synthesizes the emotional, intellectual and spiritual reality of the mind in three-dimensional material existence. Mystery and revelation are simultaneously present in the structure of ornamental meaning. Nature has been a source for ornaments because of the beauty, perfection and sublimity of its creations. For the nineteenth-century God was seen to stand behind the facts of His nature and a special attempt was made to educate the designer to the full range of His creations. What appealed to Jones was the richness and variety of local flora and fauna which could be adapted to ornament. Flowers and leaves are the preponderant part of the ornamental tradition. In fact, about 1300 of the approximately 2400 examples of ornament given by Jones in his *Grammar* are taken from the flowers and leaves of nature. Many of these examples are local ornaments peculiar to the stylistic tradition of the culture which generated them. In other words they are not universal ornaments, but are examples of the hold that nature has had on the minds of artists for millenia. The Gothic age is particularly rich in its adaptations of nature to
architectural ornament but is by no means an exception. The Goths too treated nature spiritually, identifying the Creator with their works.

Jones certainly had a point in including so many of the ornaments of nature in his *Grammar*. One is left with the impression however that the Creator in the *Grammar* is not only an artist but also a scientist. The rational for the selection of ornaments for the *Grammar* is not so much the diversity and beauty of nature's forms but the rules of design which stand behind these forms. In his Preface to the *Grammar* Jones asserts that "whenever any style of ornament commands universal admiration, it will always be found to be in accordance with the laws which regulate the distribution of form in nature". These laws are by extension the laws of God who created nature and by following His precepts one could arrive at an ornament which also possessed the beauty and truth of the original. "That which is beautiful is true: that which is true must be beautiful" observes Jones in Proposition 5 of his "General Principles": the beauty and truth of nature are the work of the Artist/Scientist. It is typical of the mid-century that science as employed by Jones has not lost its religious bearings. But ornament would never be the same after these assertions: its basis in science would broaden and the Creator of Jones would yield to eighteenth-century pantheism and nineteenth-century notions of progress and evolution. By the end of the century Jones's belief in beauty and truth would also yield to ugliness and sublimity as alternative aesthetic criteria for ornament.

**Ornament and History**

The problem of ornament in the nineteenth-century lay not so much with nature as with Jones's views towards history. Although Jones had amassed a wealth of new
ornaments to illustrate in his *Grammar* and although he had borrowed some 25% of the illustrations from previous authors, nevertheless he felt compelled to offer these to the reader with his proscription against copying. Jones felt a commitment to the past not in terms of the individual ornaments produced by successive civilizations but to the principles of ornament which universal and local ornaments generated. What he in fact did was to apply the principles governing form in nature to the ornaments of the past and find these principles derived from nature in accordance with historic ornaments. Nature and history became blurred thereby, history being an illustration of nature and nature illustrating the historical process. Jones also read the progress of civilization in terms of an organic model, seeing in the life of civilization a youth, maturity and old age: "the modifications and developments which have taken place from one style to another" he writes in the Preface to the *Grammar"have been caused by a sudden throwing off of some fixed trammel, which set thought free for a time, till the new idea, like the old, became again fixed, to give birth in its turn to fresh inventions." There is no account of the survival of universal ornaments, nor of their conventionalization into a new style. His identification of nature with history is clearest in the following passage from the Preface:

the future progress of Ornamental Art may be best secured by engrafting on the experience of the past the knowledge we may obtain by a return to Nature for fresh inspiration. To attempt to build up theories of art, or to form a style, independently of the past, would be an act of supreme folly. It would be at once to reject the experiences and accumulated knowledge of thousands of years.
By identifying nature with historical principles Jones was attempting to generate a modern style of ornament which would in turn secure a new and modern architectural style. But the principles of ornament deriving from nature and history were so abstract as to void all sense of the specificity of historical style in the genesis of a new ornament.

Essentially Jones banished in theory all revivals of ornament for the future and even an eclectic approach to historical ornament which he himself practiced but preached against. Modernism in ornament became associated with abstract principles: the fabric of history was rent. Theory and practice became divorced as the plates of the Grammar were dependant upon the copying of past styles of ornament from history, some nineteen styles in Jones’s encyclopedia, yet the theory countered this practice for the sake of the progress and development of ornamental art. Universal styles of ornament could no longer command the respect of the designer and the universal ornaments were left in a vacuum, prohibited and proscribed. The ornaments of the past could no longer in theory mediate between the past and the present. One of the essential functions of ornament to mediate between culture and architecture was eliminated. Despite Jones’s great historical acuity, a mortal blow was leveled against history by him. The increasing tendency towards abstraction in ornament and the unfortunate tendency to dismiss history altogether, which he never in theory or practice countenanced, would be part of his legacy into the twentieth-century.

Just because Jones reduced history to a set of principles does not mean that we should disregard those principles. They are, after all, based upon the precedents of history. Jones was concerned that a modern ornament would maintain the continuity of the past into the
present, but this would be a formal rather than an iconographic continuity. There is in fact no testimony to the iconography of ornament in Jones's *Grammar*; there are visual precedents that hold sway over intellectual meaning. Fortunately, Jones was not so dogmatic in his original designs. Later in life he mellowed towards historical ornament and even towards those styles of ornament such as the Chinese and the Turkish which he had condemned in the *Grammar*. His principles have a universal validity because they derive from historical prototypes and from nature which has been the key source for the generation of ornaments in the past. But we should beware Jones's denial of the specific forms of historical ornament as well as his proscription against copying the forms of the past. Now that modern civilization no longer has an ornament of its own, Jones's principles offer a valid starting point in so far as a formal theory goes; but there is more to ornament than its form. And why should we who are bereft of ornament of any kind be iconoclastic towards the universal ornaments of the past or towards their rich iconographic tradition. In order to bridge the hiatus of the legacy of the International Style, future ornamentalists should enlist the full agenda of the ancient ornamental tradition.

**Ornament and Religion**

There have been few patrons of ornament as gracious as the religions. The Old Testament contains important descriptions and prohibitions as to what constitutes ornament in the building of the sacred tabernacle and the temple of Solomon. These ornaments were all wrought in precious materials. But the proscriptions as to what were to be included as ornaments were severe, although they constitute the fruitful basis of Islamic
ornament in the future. First, God forbade the making of "any graven image, or any likeness of anything that is in heaven above, or that is in the earth beneath, or is in the water under the earth:" (Exodus 20:4 and see also Deuteronomy 4:16-19 and Deuteronomy 5:8). As we shall see in Chapter III the Victorians had a partial way out of this proscription by the abstraction of ornaments based in nature. The first ornaments which God allowed the Israelites were three-dimensional cherubim, emblems of heaven which terminated the ends of the Seat of Mercy. The mercy seat was to be placed above the ark of testimony which sheltered the second tablets of stone upon which God had inscribed the Ten Commandments. From between the cherubim God would commune with the Israelites. The cherubim were to be made out of gold and "the cherubim shall stretch forth their wings on high, covering the mercy seat with their wings, and their faces shall look one to another; toward the mercy seat shall the faces of the cherubim be" (Exodus 25:20). The same cherubim were also to be represented in two-dimensional work upon the vail which separated the ark and the mercy seat from the altar: "And thou shalt make a vail of blue, and purple, and scarlet, and fine twined linen of cunning work: with cherubims shall it be made" (Exodus 26:31). The gold candlestick celebrated in the relief from the Arch of Trajan also had ornaments sanctioned by God. Each of the six branches had a knop, or flower bud, and a flower of the almond tree as well as bowls made of almonds. The candlestick was to be of beaten work rather than cast. Finally from the Pentateuch there is the description of the ephod given by God to Moses wherein the hem of the ephod is ornamented with pomegranites and bells in an ABAB pattern:"And beneath upon the hem of it thou shalt make pomegranites of blue, and of purple, and of scarlet, round about the hem thereof; and bells of gold between them round about." (Exodus
28:33). Notably, with the exception of the heavenly cherubim, the ornaments derive from terrestrial nature. They are an especial mark of God's grace, that He sanctioned them from among the prohibited images of earth.

Later mentions of ornament in the Old Testament occur in I Kings 6 and 7 where there are descriptions of the temple and the palace of Solomon. In the astounding temple with its walls and floors of gold one finds mention of repeated "carved figures of cherubims and palm trees and open flowers" (I Kings 6:29, see also verse 32). Within the oracle Solomon had made two carved cherubims out of olive wood, ten cubits in height with wing-spans of five cubits so that the cherubims touched both walls and each other with their wings. These were covered in gold and should be considered as ornaments in three-dimensions for the oracle. The more traditional relief cherubim which accompanied the palm trees and the open flowers were also set upon the doors to the oracle made of olive wood and covered with gold. Hiram of Tyre, of the tribe of Naphtali "filled with wisdom, and understanding, and cunning to work all works of brass" was called by Solomon to finish his palace after the completion of the temple. His ornaments are more traditional, even Egyptian, as he cast pillars of brass and large "chapiters" or capitals using "nets of chequer work" or the universal diaper elaborated by lilies and pomegranites. Hiram also completed two columns of gigantic proportions for the temple and decorated the capitals of these with two rows of knops which stood upon twelve oxen, the first mention of animal ornaments in the Bible. The bases of the columns had borders of lions, oxen and cherubim set above chariot wheels. The decorative program was exceedingly complex: the pomegranites and
cherubims of the Pentateuch are now joined to open flowers, palm trees, lilies, and oxen and lions in an agenda of two- and three-dimensional ornaments which decorate the temple.

The New Testament does not contain any references to ornament. Nevertheless, Christian ornament has largely relaxed the injunctions of God in the Book of Exodus and it has contributed to floreate, foliated, animal and human ornament. Among the earliest Christian ornaments are the mosaic grape leaves and clusters of grapes in the ambulatory of Sta. Costanza in Rome representing the Eucharist and the blood of Christ. Christianity also adopted from astrology the symbols of the four fixed signs as the symbols of the four apostles: the Ox of Taurus for St. Luke; the Lion of Mark for Leo; the Eagle of Scorpio for St. John; and the Angel of Aquarius for St. Matthew. These ornaments are typically found in the four points of the crossing. Other ornaments from the animal world adopted by Christians are the lamb representing the twelve apostles or the congregation itself and the peacock representing eternity and paradise. The cross, an ancient ornament was given a new iconography based upon the passion and compassion of Christ. The Gothic age created a number of ornaments: the cross, the trefoil, the quatrefoil, the fleur-de-lys and a number of rather specific leaf ornaments. There were, of course, various reactions to the Christian liberality with ornaments. Eighth-century Iconoclasm reared an ugly head in the eastern empire but was opposed by the clergy and the opposition succeeded against the Old Testament fervor in stripping the church of its emblems and ornaments despite imperial support for the cause. Puritanical fundamentalism occurs in the west with the Cistercian reforms of the luxurious Cluniacs who believed in the richness and sumptuousness of their churches. Later the Reformation
swept away Catholic ornaments and since the triumph of fundamentalism in America with the coming of the Puritans there has been at least two traditions with respect to ornament: the first, plain and unadorned and given to a misunderstanding of the injunctions of God; the second, continuing the traditions of Christian ornament which had enlarged the scope of allowable ornaments considerably over the Old Testament.

One of the most significant passages of Exodus deals not with the ornaments of the Tabernacle but with the character of its craftsmen. The term Moses uses to describe the workmen most often is "wise hearted" and he includes both the men and the women by this phrase. Moreover he describes their work as "cunning". One fact remains certain in the description from Exodus 35:30-35: God inspired and instructed the workmen He chose from among the tribes. Here is the passage from the Pentateuch:

And Moses said unto the children of Israel, See, the LORD hath called by name Bezaleel the son of Uri, the son of Hur, of the tribe of Judah;
And he hath filled him with the spirit of God, in wisdom, in understanding, and in knowledge, and in all manner of workmanship;
And to devise curious works, to work in gold, and in silver, and in brass,
And in the cutting of stones, to set them, and in carving of wood, to make any manner of cunning work.
And he hath put in his heart that he may teach, both he, and Aholiab, the son of Ahisamach,
of the tribe of Dan.
Them hath he filled with wisdom of heart,
to work all manner of work, of the engraver, and of the cunning workman, and of the embroiderer, in blue, and in purple, in scarlet, and in fine linen, and of the weaver, even of them that do any work,
and of those that devise cunning work.

Similarly, Hiram, Solomon's workman, was "filled with wisdom, and understanding, and cunning" in the duties he performed for the temple and the palace of Solomon. But by the
time of the book of Kings the intervention of God in the work of His craftsmen has been lost. Exodus is a vitally important record of God's participation in the building of the tabernacle and its ornaments so that the project must not only have been beautiful, but also sublime. Furthermore the ornaments must have had a transcendent function beyond their material cunning: they were holy and pointed beyond themselves to God's heaven.

Less ancient than the Old Testament, the I Ching of China, also called the Book of Changes has a problematical text called Pi or Grace which deals with the subject of ornament. In the commentary Grace is seen as "only the ornament and must therefore be used sparingly and only in little things". Now the idea that ornament can be equated with grace is a useful one but the ideology of ornament is too close to the beliefs of Jones and modernism to be adequate to an understanding of the subject. To make matters worse the final line of the hexagram discards all ornament: "Perfect grace consists not in exterior ornamentation of the substance, but in the simple fitness of its form". Herein lies a paradox which must comfort the defenders of the International Style; ornament is like grace but perfect grace is unadorned form specifically associated in the I Ching with the color white! One might point out that this grace is not the grace which Moses found in the eyes of the Lord. At issue is the revolutionary ideology of Jones which fed the theory of the International Style: ornament should be used sparingly and only to decorate the structural features of the architecture. I have argued that ornament is a visual language and that therefore one cannot disrupt or simplify the content of that language without damaging the historical tradition and the coherence of ornament. Ornament is like grace as the I Ching asserts but an architecture filled with grace is what is needed today.
The Koran, and Islam in general, has been most sympathetic to the ornamentation of religious architecture. Their ornamentors were rigorous in holding to the word of God given to Moses on Mount Horeb that the Israelites should avoid making any likeness of anything in heaven, or on the earth, or in the sea. Developing upon Byzantine precedents in ornament the Muslims generated an ornament dependent upon Euclidian geometry and upon the conventionalization of foliage in their architecture. One sura in the Koran is entitled "Ornaments of Gold" and the following passage contains the reference to these ornaments:

But for the fear that all mankind might have become one race of unbelievers, We would have given those who deny the Lord of Mercy dwellings with silver roofs, and gates and stairs of silver; silver couches to recline upon and ornaments of gold: for all these are but the fleeting comforts of this life. It is the life to come that Allah reserves for those who fear Him.

In such a hypothetical and wonderous setting, the ornaments of gold stand out in the preciousness of the material and the fact that ornament is counted a comfort of life. Ornament is therefore a sign of heaven on earth which would be bestowed to humanity were it not for disbelief in God. There are also other fleeting references to ornament in the Koran. One of these reveals the ubiquity of ornament in the Orient: "We have decked the earth with all manner of ornaments to test mankind and to see who would acquit himself best" ("The Cave"). The idea of using ornament as a test of humanity reveals the Coleridgean truth that ornament is integral to the structure of human language and that this visual language depends upon the recognition by humans of the potency of nature in specific images. Ornament is therefore a summa of human knowledge, either as
revealed by God or realized by human beings. Consequently ornament can be a test of that knowledge because ornament contains the wisdom, understanding and cunning of the age. As Bloomer has pointed out to me, ornament cannot die with the passing of the institutions which acted as its host because the potencies of its language depend *a priori* on the potencies of the discovery of the natural and the spiritual world. There is an injunction in the *Koran* which forbids the violation of ornament: "Believers, do not violate the rites of Allah, or the sacred month, or the offerings or their ornaments" ("The Table"); and I believe this to be among the heathiest references to ornament in the great Books of religion. Once one begins to tamper with the structure of human language of which ornament is an essential part, one leaves the door open to an Orwellian crisis in that all the related forms of language are subject to perversion and subversion. The structure of human language is an integral part of our consciousness and to violate ornament is to violate the deepest part of ourselves. Puritanism and the International Style are guilty of such a perversion of humanity as they seek to cut mankind off from the inheritance of their civilization and from the traditions and values that visual language serve.

**Other Definitions of Ornament: Architectural, Social and Intellectual**

Perhaps the most beautiful and certainly the most perfect system of architectural ornament to be created is that of the Greeks. Up to this point in the introduction we have been primarily concerned with flat-pattern ornament, that is, ornament created for two-dimensional surfaces. Most of the *Grammar of Ornament* by Jones deals with flat ornaments, but the Greeks also include three-dimensional ornaments and relief sculpture in their ornamental system. They also included color as an essential part of the decorative agenda. Many of the
parts of a Greek temple which today we would consider structural and utilitarian were ornamental. This includes: the column with its flutes and entasis; the capital; the entablature with its Doric triglyphs and metopes and guttae in the frieze; and the later Ionic and Corinthian frieze with its decorations. The pediment was marked by its raking cornice and the cornice marked by exquisite moldings. All the sculpture and reliefs may be considered ornaments and embellishments to the structure. The dentils and the egg-and-dart moldings, the Ionic and Corinthian orders, the bead-and-reel and hawk's beak moldings have enriched Classical revival buildings for thousands of years. The use of the human body as caryatid columns or as pedimental or relief sculpture broadens considerably the definition of what constitutes ornament in architecture or the decorative arts. Griffins and other mythological beasts were employed as antifixes or acroteria as the Greeks made concrete their need for fantastic nature in their architecture.

What made for such perfect ornament in Greek architecture was the extraordinary synthesis of structure and ornament. The post and lintel system of the Greeks had been perfected earlier by the Egyptians so the Greeks could concentrate on the refinements of that system and its embellishment. Again what qualifies the parts of the Greek temple as ornament is the fact that they constitute a coherent language of style and meaning. The parts of the temple work together as a rational order possessing a constitutive grammar and hence organically wed to the structure. So perfect is this language of ornament that the Romans could adopt Greek ornament and apply it to a very different structural system without any loss of richness of effect. The history
of Early Christian architecture to Gothic architecture may be summed up briefly as the history of a transcendent and dematerializing ornament revealing the presence of heaven on earth in architecture. The touchstone for ornament during this great period may have been Roman standards of excellence, but the sensuous materiality of hedonistic Rome was dissolved into ephemeral ornaments of high originality. Everything which abetted the transcendent dematerialization of structure could be considered an ornament of the architecture although this claim takes us close to a definition of the decorative program. Specifically, in the Gothic period, the flat pattern ornaments painted or stenciled onto the flat surfaces of the architecture, combined with stained-glass and sculpture to form an ornamental program in perfect accord with the rational program of the structure. If we accept the grammar of the parts of Greek architecture as ornaments, then the same is true of Gothic architecture. Moldings for example in both architectures would be ornaments of structure. Ornaments in architecture are not therefore devoid of utility, nor can an easy claim be made that ornament in architecture is anything which is not necessary for structure. Typically, when architecture imitates itself in the building the product is ornament. Furthermore, when architecture embellishes itself by painting or sculpture the product is ornament. From specific universal flat pattern prototypes to three-dimensional columns and their capitals, ornament includes a range of art. All this should make us uneasy about its banishment from modern architecture.

There are other definitions of ornament which increase our understanding of the term. The Bible identifies ornaments with jewelry and other personal adornments. In Exodus
And when the people heard these evil tidings, they mourned:
and no man did put on him his ornaments.
For the Lord had said unto Moses, Say unto the children of
Israel, Ye are a stiffnecked people:
I will come up into the midst of thee in a moment, and
consume thee: therefore now put off thy ornaments from
thee, that I may know what to do unto thee.
And the children of Israel stripped themselves of their
ornaments by the mount Horeb.

Feeling miserable the Israelites removed their ornaments: we can identify the wearing of
ornaments therefore with well-being and psychological good health. What is interesting in
this passage is the fact that God commanded the stripping of ornaments from the people
in order to judge them and their future. These ornaments must have been jewelry of all
kinds: rings, bracelets, necklaces, pectorals, fibula and buckles wrought in gold, silver and
brass and employing precious and semi-precious gems. Each piece may have had a
traditional ornament or ornaments fashioned upon it, but the whole piece was known as
an ornament. The ability of fine workmanship and preciousness of materials to convert
an object into an ornament was also known to William Blake in his poem "Jerusalem".

Finally, there are intellectual definitions of ornament which are instructive.
Supremely gifted geniuses of civilizations may be considered ornaments of
their age. For example: Bach, Mozart, Beethoven and Brahms may be considered
ornaments of the art of music; or Einstein an ornament of physics; or Descartes,
Locke and Kant ornaments of philosophy. Not all musicians or physicists or philosophers
(or artists and architects) are ornaments: only the few who have inspired our
imagination and have become memorable. Nor have we exhausted all the meanings of ornament but only touched upon the most obvious of possibilities.

**Ornament and Decoration**

That ornament has such a complex number of meanings should not distract the reader into thinking that the term is a synonym for decoration. Ornament derives from the Latin word *ornare* meaning to equip or furnish, and decoration derives from the Latin *decus* meaning to honor or dignify. Ornament, to sum up, is a visual language in its most specific form, and a term used to describe extraordinary, even transcendent objects or people. Only in architecture do we come close to confusing the two terms, but to repeat: ornament is the thing which acts as an embellishment and decoration refers to the distribution of ornaments in architectural space in such a way as to enhance and ennoble that space. Decoration has therefore its own agenda which to borrow from Jones may be described as the grammar of ornament in space. In fact most of Jones's "General Principles" of ornament in the beginning of the *Grammar* deal with decoration and not ornament at all. Thus the repetition of ornaments on a wall in architectural space is an act of decoration. This has been called "ornamography" and I call it the ornamental field: ornaments as specific visual elements are not abstractions, however much abstraction features into their making; they are substantive, material configurations which possess beauty, perfection and the sublime in their "thingness". The way ornaments are employed architecturally is fundamentally a decorative issue. But not all decoration is ornament. Color is a prime example of this distinction.
Color may be used ornamentally when it is broken into discrete elements or decoratively when used in broad passages but it is its own subject independent of ornament and properly a decorative tool. Color possesses its own theory and history, and as optics, is a special part of physics. Most of the principles of Jones's Grammar deal with color; some 20 out of 37 propositions are devoted to color in Jones's bible of ornament. Color is therefore an essential part of the decorative agenda. In the following passage from Esther (1:6) in the Bible, the garden of the court of Ahasuerus the Persian is described decoratively almost exclusively in terms of color: "Where were white, green, and blue, hangings, fastened with cords of fine linen and purple to silver rings and pillars of marble: the beds were of gold and silver, upon a pavement of red, and blue, and white, and black, marble". Not one universal ornament is described although the pillars and beds may be considered as ornaments. Rather the writer of Esther has given us the decorative sense of the garden in which color predominates. Tapestries, drapes, paintings and sculpture could be part of the decoration of the room without being ornaments at all, although a painting for example, could be considered the ornament of the room.

Decoration, like ornament has become an ugly word to the Modern Movement in architecture. Sterility of space and structure have become commonplace. There is no color, no life, no bloom, no repose and no refreshment of intellect and spirit in modern architecture. In the past it was the function of ornament and decoration to provide these qualities in architecture. Design maxims of the nineteenth-century created for ornament and decoration cannot be stripped of their content and still maintain relevance for architecture today. Post-
Modernism is still too tied to the revolution in architecture of the International Style, too affected by the machine and technology to be a fitting context for the return of ornament in architecture. What is needed is a new respect for history, a rediscovery of what ornament has meant to architecture of the past and a new start on the invention as well as the conservation of ornament for today. Perhaps, as Jones hoped, a new ornamental style for today will lead to an acceptable modern style of architecture for tomorrow.

2 The Portable Coleridge, ed. with intro. by I.A. Richards (N.Y., 1950), 396.
3 I would like to thank Zenon Elyjiw, Senior Technologist of the Rochester Institute of Technology for this information.
4 see Nathan Ben-Zion Havkin, Ornamography: The Principles of Geometrical Ornament and its use in Decorative Art (Jerusalem, 1945).
Chapter 2: Orientalism and the Eclectic Style

Fig. 1 Henry Wyndham Phillips, Portrait of Owen Jones, 1856; oil on canvas (British Architectural Library, Royal Institute of British Architects, London).

Owen Jones was born at the height of the Napoleonic Wars in 1809, the son of a Welsh bard, collector of Welsh poetry and merchant furrier, Owen Myfyr. Jones attended the public school Charterhouse before articling to the young architect with ornamental tastes, Louis Vulliamy. Vulliamy's father was a clock-maker with a close connection to ornament, and this fact inspired his son Louis to undertake a recording of Greek ornament in architecture on his tour of Greece several years before Jones came as his apprentice. The results he published in his Examples of Ornamental Sculpture in Architecture of 1824 and this book was to have a lasting influence on Jones¹. Jones's apprenticeship culminated in a Grand Tour of five years travelling in succession to Sicily, Italy, Greece, Egypt, Turkey and Spain. While Jones was primarily interested at first in the polychromy of ancient architecture, his eyes were opened in Egypt to what he later called Arabic architecture. Certainly his visit to Turkey after his sojourn in Egypt was primarily to record the complexity of Turkish ornament. It is while on his tour that Jones decided to become an ornamentor. His apprenticeship designs in the Prints and Drawings Department of the Victoria and Albert Museum show no indication of this before his tour. His interest matured slowly: in Egypt he records certain Arabic monuments such as the unidentified tomb near Cairo, variously attributed to the Mamluk Sultan, "Abd al-Malik" or to Bey Emik Al-Akhur (Master of the House) of 1503-4. The magnificently situated tomb seen from the single minaret and from below, was
originally a water-color before its translation into lithography for Jones's *Views on the Nile* published in 1843. It is one of the first recordings of Jones's documentation of the Islamic styles of architecture which was to engage him for a decade or more.

**The Documentation of the Islamic Styles of Architecture**

Travelling with Jules Goury (Fig. 2 above) in Greece and Egypt, Jones was in the company of a committed ornamentor. Jones's primary interest at this point was color in architecture and it is only after his research on Greek and ancient Egyptian polychromy that he turned to the ornament of Turkish architecture. Here his documentation of Turkish ornament, preserved in the Owen Jones *Notebook* of the Whitworth Art Gallery in Manchester, England, is tentative and insecure and he appeared to struggle with the multiple information of the style. Other designs from improvement in Jones's skill in copying the Turkish monument (Fig. 3) as Jones has been recording the visual facts before him. colors, red and black, aided him in his copy with the ornamental agenda. The most copies is also in the *Notebook* and comes to us in a variety of colors: scarlet, two kinds of blue, purple and gold, the colors of the Old Testament (Fig. 4). Here the entire ornaments have been drawn in by pencil and almost the whole design has been colored. A complex dado of flowers in vases yields to a wall-fill of octagons and crosses in a typical Islamic pattern which Jones will employ time and again in his original
designs in the Islamic manner. For now, however, Jones is content to copy and learn, although he will later turn against this method.

In October of 1833 Jones was hard at work on one of his most successful copies of his stay in Istanbul, the vault of the *turbé* of Suleyman in the cemetary of the Suleynaniye Camii (Fig. 5). This decoration was, according to Jones who included it in his *Grammar of Ornament* of 1856, "the most perfect specimen of Turkish ornament" and he has gone to some considerable length to preserve the vitality of the original in his accurate translation of the vault. But he typically translated the curvature of the dome into a flat-pattern so that the design is fundamentally deceptive. Nevertheless it is one of Jones's best copies of Turkish ornament and decoration, and in plate XXXVIII of the *Grammar* he attempts to include more of the decoration than his earlier copy allows. Jones was not content to copy just the ornament of the Turks but also made several copies of the Yeni Valide Djami in Istanbul which was rendered in section (Fig. 6).

Only the striation of the arches and the pendentives are recorded with their ornament as the structure of the "Yeni Valideh Djami" as Jones called it, is what concerns him most. The series of designs that he made of the structure of the Yeni Djami is revealing of the skills he was to develop in his recording of the Alhambra soon after. In fact he read Victor Hugo's poems on the Alhambra which described its architecture in terms of dreams and reveries while in Istanbul, and in late 1833 he and Jules Goury set out for Moorish Spain inspired by Hugo and the ornament he had already seen in Istanbul.

From 1834 to 1845 Jones worked continuously on the palace of the Alhambra and published the results of his documentation of the palace in two volumes called the *Plans, Elevations, Sections and Details of the Alhambra* dated from 1842 and 1845 respectively. The Alhambra engaged Jones's imagination as no other monument in his travels had done to date and as none was to do again. His colored plan in the first volume of the first
British chromolithographed book, is still a model of graphic clarity in the way it places the rather small palace within its extensive military and landscape grounds. The Generalife with its pavilion celebrated by Washington Irving's "Legend of Prince Ahmed al Kamel, the Pilgrim of Love" is well outlined in its complex asymmetrical design, as all activity is drawn to the Generalife by terrace, cypress, lotus and rose when outside the palace proper. While no one has been able to capture the magic of the Alhambra, either in photograph, watercolor or pencil, the steel engravings of Jones and Goury reveal some of the mystery of the palace. Indeed, no-one has gone to the lengths that the pair of nineteenth-century architects went to ensure the accuracy of their renditions, making, as they did, measured drawings of the building and taking plaster casts of the ornaments. This exact translation of the fabric of the Alhambra encompasses the whole building in volume I. It is an essential aspect of Jones's documentation of the third of the Islamic styles he has studied so far. Jones's rational is to copy in order to comprehend the complexities of the ornament and its host architecture.

There are several examples of the first volume of the *Alhambra* which show the diversity of his investigation of the Moorish style of ornament. The first of these is the divan from the alcove between the Court of the Fishpond and the Hall of the Ambassadors. In this illustration of plate 9 the complexity of the decorative agenda of the Moors is demonstrated. The rich and purely geometric dado in light blue, yellow and black tile makes a startling contrast with the muqarna arch above it. Flatness is contrasted with fractal dimensionality: both aspects of the design dematerialize the wall into a magical and sensuous texture. The spandrels are clear in their reds, and the many border ornaments create a field of tension of parts. Each part may be inspected closely for further details. The spandrels of the divan relate to a handsome series of spandrels from the Hall of Justice, or the king's private quarters, and from the
Court of the Lions (Fig. 7). The two spandrels in the upper right hand side of the plate show the refinements of the Court of the Lions over the more conventional spandrels of the Hall of Justice. The muqarnas of the extreme upper right fragment the arch so as to give a complexity of surface and outline to the spandril. The others contain a centralizing ornament in the center of the spandrel thereby organizing the design symmetrically and providing a focus to the spandrils. The mosaic dados between the windows of the Hall of the Ambassadors (Fig. 8) show with particular clarity the organization of the circle within an octagon all set within a square. The abstract ornament blooms outward and is organically alive within its border.

These series of ornaments from the first volume are interspersed within plates of the sections and elevations of the palace. Jones has not yet focused on the essential aspect of the palace: its ornament. This he will do in a different way than the simple documentation of the Moorish style. His analysis of the Islamic styles of ornament will be far more complex and more rigorous than this documentation in volume I. The turning point is the second volume of the *Alhambra* where he focuses on the ornaments of the Alhambra to the exclusion of the decorative and structural elements. Up to this point Jones has documented three of the Islamic styles: the Arabic, the Turkish and the Moorish. He has groped his way slowly towards a focus on ornament
from amongst the Islamic architectural program. The entire second volume of the Alhambra will be devoted to the individual ornaments of the palace in their repeat condition.

**The Analysis of the Islamic Styles of Ornament**

The next phase of Jones's orientalism, his analysis of Islamic styles of ornament, will last from 1842 and the beginning of the second volume of the Alhambra, to 1856, the year of the publication of The Grammar of Ornament. During this time Jones becomes an historian of oriental ornament. But not with ease does he find his measure; rather he found himself locked into the heritage of Moorish ornament. His publication of the Alhambra was one that he spent his own money to fund the extravagant cost of the chromolithography. For a generation he was known as "Alhambra Jones". The label is apt because he seemed unable to tear himself away from Moorish ornament, so deeply had his study of their design led him away from the Greek tradition of his first mentor, Louis Vuilliamy. Again this phase of his study of Islamic ornament is characterized by the determined copying of sources. Now his study focused on Moorish ornament with characteristic single-mindedness and within three years he had completed the second of the two volumes and begun to establish a reputation as an architect and orientalist with fundamentally decorative and ornamental concerns.

His copying of Moorish sources of ornament was his essential approach. All fifty plates of the second volume of the Alhambra are devoted to ornament in its repeat condition. The taking of plaster copies of the ornament proved most useful in the second volume, as the analysis of Moorish ornament may be distinguished from simple documentation by its greater accuracy and fidelity to the original forms. There is a further difference over his initial documentation of Islamic ornament: quantitatively there are far more examples of Moorish ornament in greater detail than his first hesitant copies of Turkish ornament. Furthermore the sublime richness of Moorish ornament must have inspired him to be as comprehensive as possible in the second volume. Consequentially his analysis of Moorish ornament marks a turning point in his career: in this volume he becomes a committed ornamentor whereas in the first volume he was more of an architect. The commitment
to ornament will henceforth dominate his career and his analysis of Moorish ornament will serve him in one more important regard. It is in his analysis of Moorish ornament that he learns a profoundly oriental lesson, the lesson of mathematics. Repeat ornament must be distributed by grids that are basically square, rectangular or triangular. The ornament itself should have about it properties which abet the distribution. These lessons Jones learned in the second volume of the *Alhambra* and when he later came to practice an original art, he was able to apply these lessons culled from Moorish ornament.

Jones also carried over into his analytic phase his earlier love for color. He saw the Moorish decorative scheme as being fundamentally traditional in its adherence to the law of the primary colors of blue, scarlet red and yellow. He restored the ornament of the Moors to its original splendor as seen in an early plate from the second volume taken from over the door of the entrance to the Court of the Lions (Fig. 9). In this basic harmony of blue and red, the yellow is transformed into the ornamental color of gold. In these plates the decorative and the ornamental traditions of color fuse: one partakes of the other despite the obvious differences in their respective agendas. Jones in any event rarely shows the environmental space of these colored ornaments save in the plate of the famous Mirador de la Daraxa which overlooks the harem garden. Rather Jones shows the ornament in a limited repeat condition as in the panel ornament from the Court of the Mosque (Fig. 10). The color is very traditional perhaps but the synthesis of decorative and ornamental is unusual. Because gold is such a traditional color and associated ornament in both the Old Testament and the Koran, these plates are rendered transcendent by that color. This achievement was costly as it marked a departure from the iconic and emblematic ornament of A.W.N. Pugin whose original synthesis of Christian
Gothic led to a major revival of ornament in architecture for the rest of the century. Jones stressed in these plates from the *Alhambra* an idealized version as well as an original version of the palace walls. From this time on Jones will seek out a sensational and aesthetic ornament to complements his colors with the assurance that the Moors had practiced in the *Alhambra*.

The connection to Pugin from this time onward will be productive for them both given Pugin's short life and the differences in their ornamental styles. But Pugin had a habit of seeing even the most oriental design in terms of his favorite Gothic. An ornament from the entrance walls in the Hall of the Ambassadors perfectly displays the feather motif, pomegranite texturing and caligraphy in the vertical undulating lines of its ogival diaper. Only the schemata of this classic Moorish design illustrated in the second volume of the *Alhambra*, no. 21 (Fig.11), was adopted by Pugin for his famous "Lily and Rose" ornament for the House of Lords which is dated from 1846-47. Pugin has preempted the Moorish content and retained the mathematical form of the diaper in a way which reveals not only his working method but also the method of the earlier Goths who transformed Islamic patterns into occidental ornaments. The same ogival diaper was to influence William Eden Nesfield in his tile wall for Loughton Hall chapel in Loughton, Essex from 1877-78. An essential by product of Jones’s analysis of the Moorish tradition of ornament is the influence these ornaments from the second volume were to have on succeeding designers. Although most of Moorish ornament remained too complex to transform into occidental
designs, nevertheless Jones must be credited with bringing these ornaments to the attention of a wider public and especially to designers who had a thorough appreciation of the problem of ornament for their age.

Only one part of the Alhambra has been restored to its original polychromy, the Hall of Repose next to the baths. The Hall was restored during the 1840's probably after the publication of the second volume of the *Alhambra* in 1845. The restoration follows Jones's scheme of blue, red and gold which he saw consistently employed throughout the palace. In many of these ornaments the diaper is picked out in white, leaving a transparent lace which furthers the dematerialization of the flat wall into a fractal surface in which each part of the ornament is fragmented into its color zone, the red advancing and the blue receding. The Hall of Repose has this same complexity of the color program, of fragmenting in the parts despite the obvious visual unity of the whole, and acting in a push-pull manner with respect to the individual colors. Every detail of the Hall of Repose has color; the interchange tile pattern of the dado; the walls with their repeat patterns; and the columns with their capitals. While the capitals of the Hall of Repose are much more complex than anywhere else in the palace, the two capitals from the Court of the Lions (Fig. 12) show the beauty of treating the capital according to traditional Moorish polychromy. Especially handsome is the blue chevron which ornaments the base of the capital on the right. What Jones's plates of ornament cannot show is the
architectural environment of colored space which is the glory of the Hall of Repose. Color acts upon the space of
the small two-story Hall of Repose by complicating the agenda of decoration with an independent agency which,
to repeat, dematerializes the two-dimensionality of the wall to create a bloom of color in front of and behind
the plane of the wall. No wonder that the German architect Wilhelm Zanth and the physicist W. von Bezold
saw primary color polychromy as the highest achievement of Moorish ornament. Von Bezold claimed, a
generation after Jones, to see in the polychromy a purple bloom created by the optical mixing of red and blue
with gold. It is the coloration of the plates which is the most creative aspect of Jones's analysis of Moorish
ornament. He could see in the primary colors of the Moors continuity between Egyptian and Greek
architecture. The colorism of the Alhambra was therefore perfectly traditional. And this tradition would form
the basis for Jones's radical color scheme for the coloration of Joseph Paxton's iron-and-glass Crystal Palace of
1851. The tradition of the primaries served Jones well in this controversial decoration; his analysis of Moorish
polychromy led him to respect the push-pull of the primaries on the surfaces they decorated.
Consequently he placed blue on the concave surfaces of the cast iron columns and yellow on the convex surfaces.
As red is a mean between the two other primaries, he placed it in a neutral context on the underside of
the wrought iron girders where its bloom would be enhanced by shadow. This structural allocation of the primary
colors separated by white derives from the plates of the second volume of the Alhambra in a purely visual way,
The Moors were not as exacting with structural polychromy as Jones: generally the blue of their ornament is
placed on the deepest ground of the ornament and the gold is placed on the closest surfaces of the design.
But this was not always the case, as the feather ornaments were colored blue yet placed quite close to the frontal
surface of the design. In the plates of the second volume, however, the blue definitely appears to be
furthest away from the frontal plane of the design; but this is because the Moorish ornaments are translated
from their original fractal condition onto the flatness of the page. The analysis of Moorish ornament is quite
misleading in this regard although Jones could typically make of their practice a principle which accorded in the
main with Moorish practice.
When the Crystal Palace was reassembled at Sydenham in 1853 Jones was chosen with his friend the architect Matthew Digby Wyatt to create a museum of the eight historical civilizations arranged in architectural courts. Jones was responsible for the Egyptian Court with his friend Joseph Bonomi, and also for the Greek and Roman Court as well as the Alhambra Court which was a smaller version of the Court of the Lions. A fragment of an arcade survives the planning of the Alhambra Court which shows the restored color of the Court of the Lions in the primary colors. The Alhambra Court popularized the Moorish style in a way and to an audience unreached by the expensive two volumes of Jones's *Alhambra*. Furthermore it popularized the polychromy of the Moors and reaffirmed the taste for the exotic in Victorian Britain. To the general public it held up the ideal of a strongly colored architecture and its ornament which tended to dissolve the wall rather than confirm the wall in its two-dimensional flatness. The analysis of Moorish ornament by Jones had therefore a pedagogical tactic; its intention was to educate the public to a tradition of architecture so heavily committed to colored ornament that it would seem to be secondary to the decoration. The ornament could be seen as the art of the architecture as Jones was soon to observe.

The Crystal Palace at Sydenham was an interruption of the final product of Jones's analysis of the Islamic styles of ornament, his *Grammar of Ornament* published in 1856 but begun earlier in 1852. The *Grammar* will be the topic of two further chapters in this book; here I will confine my commentary to the orientalist aspect of the *Grammar*. In fact, about one third of the *Grammar* is devoted to oriental ornament and one quarter of the plates represent Islamic ornament. To the Arabic, Turkish and Moorish styles of ornament which Jones had already documented and analysed, he added the Persian and the Indian styles of ornament to the *Grammar*. The latter two styles of ornament are quite different than the Mediterranean based styles of Islam. They show a relaxation of the proscription against representation found in Exodus, and while maintaining the Islamic interest or commitment to geometrical forms, they also show an increased love of nature in the form of leaves and flowers. Only the first three of six plates on the Persian style of ornament are really authentic; the Metalwork
Department of the Victoria and Albert Museum has discovered that the last three plates (nos. XLVII, XLVII* and XLVIII) are in fact Indian, although in Jones's time they were mistakenly identified as Persian. Jones perpetuated the mistake however, a mistake which underscores the closeness of the final two Islamic styles of ornament he was to analyse in the Grammar. Plate XLVI (Fig. 13) shows a variety of border patterns with the color green added to the palette of the primaries.
These Persian ornaments are filled out in their agendas by small conventionalized flowers and leaves. Only three of the examples are purely geometric, although the previous plate (XLV) is almost entirely geometrical in content. This softening of Islamic geometry with the further agenda of leaves and flowers must be due to the
influence of the Chinese whose ornament is nearly naturalistic and specifically floral. The exuberance of Chinese floral ornament is also seen in the Moghul style of ornament, especially in Plate LIV*, #6, in which a host of flowers are treated very conventionally, that is, flatly either head-on or in profile. This lacquered box top has the traditional and universal chevron as an ornament for the border of an almost random placement of sixty-four flowers and knops, or buds. The flowers are light on a black ground reversing the typical occidental tradition of dark ornaments on a light ground. The fifteen plates devoted to the Persian and Indian styles of ornament are a definitive extension of Jones's analysis of the Islamic tradition. Together they buttress Jones's theory of conventionalization: “All the laws of the distribution of form which we have already observed in the Arabian and Moresque Ornament are equally to be found in the productions of India.”

The Absorbtion and Transformation of Islamic Ornament

The Grammar shows both the persistence and the transformation of the Islamic tradition. Jones's own persistence is seen in the presentation of copies of Islamic ornament as accurate as he can make them. But there is also a level of transformation at work in the Grammar. First, Jones's method has changed. He is no longer working deductively as he had done in the second volume of the Alhambra. This method entailed the painstaking copy of the original to its transcription to the printed page. Comprehensive analysis is the end point of the deductive method. In the Grammar Jones is working inductively. The copies of the ornament are made not to illustrate the ornament as such but to advance a radical theory of ornament. The most spectacular plate of the entire Grammar, plate XLI, summarizes sixteen plates from the earlier Alhambra. These ornaments are not shown in their repeat condition (Fig. 14)
but are shown as irreducible fragments of the original designs. These ornaments are the essence of the repeat. Jones has placed them in four rows of four ornaments to each row, making sixteen ornaments in all. Every one of these ornaments demonstrates the propositions of the Preface and justify the correctness of Jones's formal
theory of ornament. The ornaments in other words are not there on the page to promote Moorish design or Islamic design in general; rather, they are meant to reveal the validity of Jones's theory of conventionalization that have been induced from individual examples of ornament. While a quarter of the Grammar is devoted to Islamic ornament, the committed Orientalism of Jones's earlier phase of analytic study has become transformed into a world view which subsumes the interest in the Islamic by putting it on par with any other style of ornament from world civilization. All styles of ornament, not just the Islamic, support inductively his theory of ornament. The Islamic styles happen to corroborate his theory with greater or lesser sympathy for his formal point of view. What accounts for this change in attitude towards the Islamic styles of ornament? A simple answer is that Jones was no longer content to study and analyse the Islamic tradition. He wanted to be an original artist of ornament and thus viewed the Islamic tradition as a means towards his own original development as an artist and architect. Jones's approach to Islamic ornament was Romantic in a fundamental way, seeking in those styles of ornament not only the atmosphere of the exotic, but also requiring the transformation of the ornament into an original and universal style of his own. Another reason is that Jones spent a good deal of his inheritance on the publication of the Alhambra and thus financial considerations forced him to cast his net wider in seeking remuneration for his efforts. But he was slow to abandon the inspiration of his art in Moorish ornament. At least this is true of his efforts in architecture. About the time he was publishing the second volume of the Alhambra in 1845 he began work on two substantial houses for the speculator J.M.Blashfield in Kensington Palace Gardens. Number 24, now the tasteful Saudi Arabian Embassy, was treated by Jones in the Moorish style, but in fact owes very little to the Alhambra proper. Rather Jones has treated details such as the balusters of the piano nobile and roof with a sense of Moorish geometry. These details together with the large, almost oversize brackets to the piano nobile balconies and the small, really miniscule domes which front the facade are applied to an English house to create atmosphere and the ambience of the Oriental. This is really a revival piece of architecture and a cousin to John Nash's Brighton Pavilion begun thirty years earlier. It is in the interior that the transformation of the Moorish style of ornament is most readily apparent. Dr. Michael Darby has identified one
extant design of Jones's for the Octagon Room of 8, Kensington Palace Gardens. First, the octagon design (Fig. 15) is a very simplified version of an Islamic or Moorish ornament. It relates to Moorish design in the primary colors employed and in the overall geometrical conception. Jones has also kept alive from the Moorish tradition the ephemeral and dematerializing quality of Moorish ornament, but the ceiling design is really quite original. Furthermore, it is quite a tentative piece of draughtsmanship, quite crude in its parts and executed at a scale to obviate the roughness of its execution. This ceiling relates to authentic Moorish ornament spiritually rather than physically. Jones has transformed the real Moorish source of inspiration into an original conception. He has evidently shifted the grounds of his Orientalism in this early design by his own hand. Dr. Darby's dating of this ceiling to 1845 allows the further dating of another Orientalizing designs in the Department of Prints and drawings closely related to the ceiling to this same period. This design (Fig. 16) is also related to the two houses in Kensington Palace Gardens. It too appears to be a ceiling design and employs a similar centralized star motif as the focus of the design. Both are rather large designs; both employ the primary colors; both use the white of the sheet to simplify the initial Moorish inspiration while retaining the transparency of that style of ornament. Missing in both designs is the specific Moorish vocabulary of ornament: feathers, pomegranites, shells and interlace of the diaper. Astonishingly enough neither design is in the familiar Moorish diaper or grid. Both are closer to the prevailing emblematic ornaments which the younger Pugin was popularizing in the Gothic Revival style. These designs are close formally as neither design can be interpreted iconographically since the individual forms of the designs operate sensationally rather than associatively from a psychological stand-point. It is obvious that at this early period of Jones's own ornament, only a formal interpretation of the Moorish conditioned his original work. Jones is transforming the Moorish effects of transparency, dematerialization and polychromy into original designs. Later he set for himself a more complex agenda. The new agenda featured mathematics as the principal element of
the design. Moorish geometry had been one of the primary lessons Jones had absorbed from his analysis of their ornament. Given his tentative start towards original designs based upon Moorish precedent at Kensington Palace Gardens, the geometry of the Moors offered him a radical solution in his process of transforming the Islamic heritage of design. In the Alhambra, of course, such geometries as Jones was to employ in his own designs are confined to the dado. Jones uses this kind of geometry for the ceiling in the large watercolor of about 1850 (Fig. 17 below).

Here multiple circles of eight pointed stars surround a large circle of sixteen points. The *gestalts* of form are magnificent, dissolving one gestalt by the next combination of form which suggests itself to the viewer. Jones has not copied the geometry from the Alhambra; rather, he has absorbed the lessons of the Moors so well that he is able to create a new geometry based on the same formal principles as the Moors employed. However, such is his success that the charge of revivalism may be made against Jones. Given the prevailing tendency of his age to revive past styles of ornament and architecture this charge would not seem to hold much weight. However, Jones had declared himself against such revivalism in 1836 as soon as he had returned from his Grand Tour, and had deliberately set himself the Romantic goal of creating an original, modern design for his age. This agenda was obviously too ambitious for him to achieve at this early date in his career. Ornament is the most difficult art of architecture to practice, requiring the synthesis of many sciences (as we shall see later) and requiring an extraordinary technical skill. No wonder that Jones was forced to set aside his ambition as he struggled towards the mastery of his art. Nevertheless the geometry of the Moors was a profitable learning experience, and allowed him to create designs of great complexity and beauty, even if these designs precluded a deeper iconography. Geometry is also extended by Jones into the border of this design, organizing the complex Moorish fret into a strong termination to the geometry of the field. This design is "formed by the intersection of equidistant lines" (*Grammar*, 72), and has its origins in the Greek geometry of Euclid or of Hippodamus of
Miletus. A sensationist design, it relies on the fragmenting process of gestalt organized forms for their vitality. The design, and several others in the Victoria and Albert Museum Prints and Drawings Department relate to another exceptional design in Jones's oeuvre, a wall design with a handsome dado dated after 1856 when Jones shifted his medium from watercolor to the more Oriental, opaque and jeweled gouache. This Indian media had been introduced at the Crystal Palace in 1851, but Jones was slow to adopt it. It is a perfect medium for ornament, and the greater liveliness of color is readily apparent in the geometric dado of this design (Fig. 18) compared with the diffuse and tentative coloration of the earlier two designs already discussed. In the dado of this design nine pointed stars surround a twelve pointed star. But the geometry does not dominate the design as it did in the previous two designs; rather, color features as a distinct and cooperative agenda to render this dado more brilliant and self-assured than the earlier designs. But this is an exceptional design, to repeat: the wall-fill has been directly borrowed from the second volume of the *Alhambra*, plate 9, # 17. Although the color of the wall-fill derives from occidental science (I will discuss it again in Chapter 4), the interchange pattern contradicts Jones's own theory of the *Grammar* where he argues against copyism of any kind. Why then this violation of theory in practice?

In order for Jones to transform the Moorish sources into original designs he had to thoroughly absorb the lessons of their ornament. The first stage in this absorption was his simple documentation of Arabic, Turkish and Moorish ornament. This entailed copying however much Jones was to turn against this practice in the *Grammar* later in his career. Furthermore we have seen that Jones's desire to create an original and modern ornament was beyond his technical grasp of the subject, at least initially. He could not live up to his ambition before so absorbing and transforming the prototypes that he could make every Moorish ornament his own, so to speak. Perhaps he felt that in this design he had transformed the original through color. The design, for whatever reason, remains unique in his oeuvre; he was generally consistent with his theory if allowing himself an exception to his rules. Certainly this remains one of his strongest designs. The added clarity of the color furthers
the dissolving of the plane of the wall into a transcendent, dematerialized veil. The wall plane disappears: the dado advances; the wall-fill recedes. No part of the design obeys the English penchant for definitive two-dimensionality. The geometry of the dado escapes the confinement of the plane to provide points of color which have their own dynamics.

But such an isolated example of his transformation of Moorish sources could not satisfy Jones for long: he was too much a committed Romantic to give up the quest for an original style of his own. The next design, also dated about 1856 reveals the difficulty of his chosen path. Here a central rosette explodes outwards (Fig. 19 above) from a central core to meet the confining hexagon of the emblematic geometry which gives the design its ultimate coherence. Both elements of the design are at war with one another. The rosette wants to fragment into oblivion; the hexagon contradicts and stabilizes this impulse. The result may be original, even modern for its time. But it is decidedly unsuccessful. The use of primaries remains the strength of the design, and once again Jones works his way out of difficulty by a superior sense of color. As ornament, however, the design leaves much to be desired. If there is strength in the way Jones has coerced the blue leaves to compliment the red elements next to the blue leaves, there is a definite weakness in the way that he wavers between emblemism and sensationalism in the design. Not being sure on either count, the design lacks inherent harmony. At best it is a sublime design, but has so transformed the principles of form of the Moors to be perversely derivative. It points the way towards Jones’s final phase of Orientalism, his adaptation of Islamic sources for eclectic and modern purposes in his design.

The Adaptation of Islamic Ornament and the Eclectic Factor

The key to this final phase of Jones’s Orientalism is to be found in the theory of the Grammar. While the Grammar features Islamic ornament visually, the theory set forth in the Preface denies its historical potency. No longer could a budding ornamentalist copy, as Jones himself had done in the beginning of his exposure to Islamic ornament, the visual facts of Islamic design. Instead he was to imitate the formal principles upon
which Islamic design was originally created. Islamic ornament was to be stripped of specific visual content and specific principles of form deriving from the historical styles of Islam substituted for the individual forms themselves. This would ensure original ornament, but it also banished revivalism. At this stage of his career Jones did not often practice what he preached. Rather he initiated a new strategy: eclecticism. This allowed him to combine in one design the salient forms of the Egyptians, the Greeks and the Moors with a dash of Chinese or Indian. The Islamic was subsumed in this strategy as one of many options rather than the principal feature of the design. Eclecticism came rather late in his career as an alternate option to his pursuit of modernism in design. More typically he chose to adapt Islamic ornament to more original purposes, and as the mastery of art developed, these late designs are among his most successful. The cost, however, was great indeed. Jones was forced by this new strategy to abandon all iconography. His designs lack meaning even though there is a real measure of iconological reference in his art. His dalliance with emblematic ornament at 8, Kensington Palace Gardens is a cul-de-sac. This option never flourished in his ornament. A pure and revolutionary formalism takes its place, and in his rejection of visual history for principle he prepared the way for the alternate modernism at the turn of the twentieth century as well as the Modernism of Wright and the International Style. This is a great legacy to be sure, but the price derailed the primary love of his life, Islamic ornament. Furthermore it undermined his greatest hope, that a new ornamental style would generate a modern architecture. One of the greater theorist of ornament and one of ornament’s greatest practitioners, he prepared the way for ornament’s demise in the twentieth century. His adaptation of Islamic ornament to his requirements for modernism belies not only the integrity of his Orientalism but also the five-thousand year tradition of ornament.

The process of the adaptation of the Islamic tradition of ornament to his original work proceeded by principle rather than specific visual content. This can be clearly seen in his presentation design for Osler’s Gallery, Oxford Street, London of 1858-60 (Fig. 20). Dr. Darby has already pointed out the
Islamic splendor of effect of Osler's created by the cast-iron, colored glass, fibrous plaster painted in the primary colors, the mirrors and pendant gas burners which "gave the building its ethereal, eastern aspect" (The Islamic Perspective, 83). I would argue that the space is eastern because the surfaces do not clearly contain it, that the space is ambiguous and that light and space meld in this structure. Dr. Darby disagrees with this assertion; however, both of us agree that the radical use of glass and color dissolves the space and thus Osler's achieves the mystery and sublimity of the Alhambra without being in any specific way indebted to the Moorish palace. The debt to the Moors is purely formal by way of principles applied to new building materials. This was the third of radical new structures which Jones built between 1856 and 1858: it follows the St. James's Concert Hall of 1858 and the Crystal Palace Bazaar opened late the same year. Both made novel use of iron-and-glass decorated with original fibrous plaster ornament in the primary colors. Thus Jones applied the color system of the Moors to new architectural materials and the result is a debt to Islamic architecture which is perfectly formal, dematerializing structure to extend space beyond the confines of the material.

This spiritualization of space derives from the function of ornament and color in the architectural host. One has to imagine the way in which the ornament affects the space in a ceiling design dated about 1858-60, (Fig. 21).

Here a favorite Islamic pattern has been adapted by Jones to an occidental setting. The mechanical regularity of the design precludes its identification with Islamic craft so much does exacting geometry dominate the decoration. Furthermore the design of octagon stars and crosses is applied to the entire ceiling in a way that has more to do with European tradition than Islamic practice. Yet the design is unmistakably Oriental: the ornamental motif has been adapted rather than transformed; adapted that is to western needs and tastes. The light and dark blue of the octagon star breaks through the plane of the ceiling to open up a celestial void.
Ironically it is the color which retains something of its Moorish splendor, though this element of the design too has been adapted to, the red crosses which enter into the space of the room form a grid or lattice diaper through which one views the heavenly realm beyond. Space has become ephemeral and ethereal because of the interaction of the two agendas: color and ornament. Even the geometry of the Moors was adapted at this point of Jones's career to a westernizing influence. Having been an occidental influenced by the orient, Jones, late in life, became an Orientalist influenced by the west again. This reversal of influences determines the character of his Orientalism. Western geometry organizes the ceiling design, the intervals of which are treated in a Moorish way without any specific Moorish forms being employed. This is as much a modern design as it is an oriental one: modern forms but an oriental mood. It too is lacy and dissolves the surface of the ceiling. On the one hand it is simpler than Jones's earlier transformations of Moorish geometry; again the gestalts of form are harder to arrive at. With difficulty one can discern the hexagon and diamond of the pattern, as well as a star and numerous trapezoidal forms. But Jones's original design is much harder to interpret than the Islamic counterpart.

In 1861 Jones had his appetite whetted for an ambitious project for the Khedive Ismail Pasha of Egypt. The program called for an early-summer palace on the Island of Gezira, in the middle of the Nile, in Cairo. Jones designed a pavilion for the palace in the Moorish style (Fig. 22) seen in section in this illustration, and probably hoped to design the palace as well.

After a delay of several years during which the commission went to the expatriate German architect Franz Beg, Jones was offered the interior decoration of fifteen rooms of the palace, and possibly the kiosk as well. The latter has been destroyed but the palace remains. The kiosk or pavilion is one of Jones's most successful examples of Orientalist architecture. Culminating in a dome of muqarnas it is reminiscent of the Court of the Lions without direct copying of the Moorish source as at Sydenham in 1854. The interior
of the principal reception room of the palace (Fig. 23) lacks the dematerializing papers on the wall which would have added hybridistically to the richness of the room.

Today the walls are barren, reflecting out-moded International Style tastes. What is still evident is that Jones was also imposing occidental taste on this palace for the Khedive. The engaged pilasters which separate the windows are a western contrivance, and Jones has returned to the emblematic geometry of Robert Adam and the younger Pugin for the decoration of the ceiling. Orientalism as such has been reshaped to satisfy the needs of occidental ornament rather than presenting an Arabic ornament for the Egyptian ruler. Probably the wall-paper would have given a different effect and softened the classicizing of this, an Oriental interior. As it is now it lacks magic.

Jones was also taken by Indian ornament, and to some degree his discovery of Indian ornament in 1851 consolidated his theory of conventionalization, moving him away from the geometry of the Moors into a world rich with the leaves and flowers of nature, But he absorbed and adapted to the Occident the lessons of Moghul architecture as well. The most stunning example of his application of Islamic architectural
elements to western architecture is seen in the final version of his "crystal palace" for the French at St. Cloud in 1862 (Fig. 24).

The scale is astounding and perfectly western: well over 1000 feet long and containing the basilica of St. Peter's in the Vatican under its dome. It is the dome which is so wonderfully oriental in effect, even if the new iron-and-glass structure is a departure from any Islamic building. Essentially, this dome is Moghul as applied to western technology. What remains High Victorian is not only the Orientalism but the making of a "feature" of the dome: it dominates the composition as does an oriel window by the younger Pugin or a spire by Butterfield. Like High Victorian "features", the dome has been cribbed from an unknown source and blown up well beyond the original scale. As a "feature" it has become the dominant motif of the design (Fig. 25) and makes of Moghul an international design of great conviction and clarity. In this design the beautiful and the sublime combine for a particularly rich aesthetic effect, streamlined yet awesome.

Unfortunately the partnership of Jones and Joseph Paxton in this structure fell apart before construction could begin. Perhaps design outran technology and St. Cloud could never have been built. Whatever the reason, this sublime structure remains one of the most memorable examples of architecture on paper in the entire nineteenth century,

Related to the project of St. Cloud is an iron-and-glass yurt (Fig. 26) with its appeal to Persia and India in the floral ornament and in the tent idea, and with the divans deriving from Turkey.
This part sun-room and greenhouse is an elegantly witty design in which the tent appears to float over the curtains. This interior is also a masterpiece of intimate nineteenth-century engineering and shows how closely the industrialism of the Great Exposition of 1851 touched the lives of private persons of means. Windows were not only getting larger as the Queen Anne style demonstrates, but in Jones's hands, glass was becoming window, wall and roof. The continuity of surface of the sun-room has much to do with the Central Asian yurt which is similarly braced by narrow slats of wood. Jones has adapted and applied the Oriental qualities of the yurt to modern technology, and arrived at a modern interior which carries nonetheless a flavor of the Islamic with its curtains and built-in ottomans.

So great was Jones's reputation as an Orientalist that he was the logical choice to design the Oriental Courts of the South Kensington Museum in 1863. Unfortunately all trace of these courts has disappeared behind the utilitarian kitchen of the Victoria and Albert Museum. On the other hand many designs related to the Oriental Courts survive in the Prints and Drawings Department of the Victoria and Albert Museum. According to Darby there was a Moorish Court that was never completed, an Indian Court, a Chinese Court and a Japanese Court intended for the Oriental wing of the Museum. The designs were commissioned in late 1863 and finished in early 1864. A beautiful design in gouache still exists for the Indian Court (Figs. 27) and embraces seven semi-circular arches, with two russet bays framing a dark blue bay, and two scarlet bays framing two light blue bays.

The intrados pilasters are bright red and the pilaster marking the exact center of the bays is painted in the complementary colors of light blue and medium orange. Three orange and three blue pilasters divide the composition, unifying the five basic colors of the design. In the spandrels are arabesques and diaper patterns. This design marries Jones's own theory of conventionalization to the Indian inspiration of the arabesque. Jones's own adaptation of the Indian can be seen in the diaper patterns in the dark blue and two scarlet red spandrels. It is in fact a modern version of the Indian. Jones also superintended the completion
of the Courts which were executed by the decorator Thomas Kernshaw. Jones evidently had trouble with his
decorator, but the two collaborated in a telling manner according to the Building News which reviewed the opening of
the Courts. Darby quotes part of the review which states that "it was no easy task to devise a species of 'wall veil'
which would accommodate itself to the ugly outline of a modern segmental-headed window,
and we think Mr. Jones has done Judiciously in tinting his piers with flat colour and reserving the richer
portion of his design for the spandrels" (Darby, The Islamic Perspective, 112). It is precisely this idea of a 'wall veil'
which is so Oriental. Jones had studied at great length the Moorish system of dissolving the wall and corroborated
this finding with other Islamic styles of architectural ornament. The tendency to dematerialize and etherealize structure
is one of the principal gifts of the Orient to Occidental architecture, achieving an Orientalist atmosphere
despite the Occidental structure he was decorating.

But Jones was also applying western design concepts to the Islamic style of ornament. This is clearly
seen in the in a wall design for the Oriental wing of the Museum (Fig. 28) which features green leaves and
red and white flowers. I have written about this design that the "cluster of stems act as a surrogate for
the principal stem, a cluster radiating tangentially into continuous stems outward and upward
like an imitative but conventional plant in an asymmetrical composition" (Perspecta 23, 150). The key word
is conventional: a system of design concepts originating with A.W.N. Pugin, Jones and Jones's student,
Dr. Christopher Dresser. The problem of conventionalization will be explored in the next
two chapters. Suffice it to say here that conventionalization overrode Jones's initial Orientalism and
subsumed his Orientalism under a more universal design approach to ornament. While individual aspects
of this design derive from Indian practice: for example, the asymmetry; the edging of the leaves in gold;
and the randomness of the placement of the flowers; still the design as a whole has been brought into the
realm of western design concepts through the aegis of the theory of conventionalization. Even the black
ground, so typically Indian, reflects also the knowledge Jones had of Goethe's Farbenlehre which was in
Jones's library at his death. Jones was not always as committed to his theory of conventionalization as the Grammar might lead one to think. As his surviving designs in the Victoria and Albert Museum show, he was as interested in period design as he was in trying to create a modern style of ornament. Nor did he always abandon the specific content of the history of ornament. Given our historical hindsight we would today call him an eclectic as much as a modern. Despite his Orientalism, he never abandoned his love of Greek ornament and the anthemion in particular. Furthermore in his interior designs from the 1860's he frequently employs the anthemion in the cornice, sometimes combining it with an ornamental border of Moorish adaptation. If his textile designs feature such oriental names as "Maharanee", "Sultan" and "Peri", there are others which he calls "Athens" and "Etruscan". And there are others with specifically western names in western styles. His absorption in the Islamic became distilled and rarified in the 1860s and added to his growing interest in the ornament of the world. Never abandoning the Orient, he became more interested in other styles of ornament while keeping up his search for a modern style of his own. He laid the theoretical foundations for the modernism of the twentieth century, but in his own work such modernism almost eluded him. Instead he took to the aesthetic practice of designing in the style of period pieces from history. Occasionally as at 16, Carleton House Terrace he combined the Moorish with the Greek, Pompeian and Chinese, with flourishes of Italian for good measure.

This kind of eclecticism, although rare, reveals his Orientalism in the context of the other styles of ornament to which he increasingly subscribed. The Islamic now became imbedded in a relativising situation wherein it was now one of many styles of ornament instead of the principal feature of his style. This is especially true of the drawing room on the piano nobile of Alfred Morrison's house in the fashionable Carleton House Terrace. The interiors on the first floor and the piano nobile took almost five years to complete. Henry Cole visited the interiors on Sunday, May 22, 1870 and described the probably completed work in his diary as a "mixture of Greek and Moorish, perfect mechanical work" (Darby, *The Islamic Perspective*, 98). G.H. Lewes and George Eliot visited the Morrissos several years later on Thursday, March 21, 1872, and were appalled by
the *nouveau riche* mentality of their hosts: "called on the Morrisons to see Houdon's bust of Voltaire and their pictures. Bored by being shown all their splendours and rarities: each the finest in the world" (G.H.Lewes Diaries, Beinecke Rare Book Library, Yale University). No mention is made of Jones's interiors although Jones had decorated their "Priory" first in 1863, making further alterations to their house in 1871. Perhaps on that account they had no need to envy the Morrisons. In 16, Carleton House Terrace the glory of the interiors is the ceilings, and the grandest ceiling that of the drawing room (Fig. 29).
Here the octagon star and the interchange cross which we have encountered before in Jones's documentation of Turkish ornament and again in his adaptation of the Moorish to western ornament, reappears as a fractal ornament, having, that is, a certain three-dimensionality although conforming to the flat surface of the ceiling. What cannot be seen readily are the touches of green, red and gold paint which Darby records on the ceiling. What also cannot be seen clearly is the Greek anthemion which decorates the coving just below the ceiling. Such is the power of the anthemion that Cole could ignore the many other styles of ornament which are also present in the interior. Was Jones attempting to make amends for his theory of conventionalization in the *Grammar* by salvaging the best ornaments from the past and employing them all in his interiors? The result gives to the Moorish ceiling a kind of *cosmopolitan aura* which had been lacking in his straightforward Orientalism. Certainly the eclecticism adds to Jones's international reputation as being a designer facile in all styles of ornament. Certainly it softens the charge that Jones proscribed historical ornament in favor of a modern style. But his theory was enormously influential, and the damage done there could not be undone by an exception or two, nor undone by his own practice in interior design. His Orientalism was also a catalyst for the theory of conventionalization and we now turn our attention to the central document of his theory, his *Grammar of Ornament* of 1856.

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1 I would like to thank Professor David van Zanten of Northwestern University for this information about Vuillamy and his father.
Chapter 3: The Conventionalization of Ornament and Decoration

The Background to Conventionalization: Pugin and Ruskin

The conception of ornament as conceived in the plates of the Grammar differed radically from the styles of ornament being practiced or advocated in the decade prior to its publication. These styles were either rejected or incorporated by Owen Jones into the Grammar. The most prevalent approach to design of the 1840s, naturalism, was even practiced by Owen Jones in a rustic version for several of his chromolithographed books of the late 1840s. But by common consent of the liberal reformers in Victorian design, who organized the Great Exposition of 1851, naturalism was the approach to be most severely criticized. This group included Owen Jones, Henry Cole, M. D. Wyatt, R. Redgrave, A. W. N. Pugin, R. N. Wornum and William Dyce. All agreed that naturalism was the function of the decorative arts was to abstract\(^1\) from nature the essential beauty, and not to represent nature in all its attributes. The painterly tradition of the French made naturalism the style of their favorite quality exports to England (Fig. 30).
Characteristic of this kind of ornament is the illusion of three-dimensionality in the representation of the flora. Furthermore, naturalism was based on imitation which was an anathema to the liberal reformers. Three-dimensional illusion implied a disregard for geometry inherent to the motif. Yet, as the French silk from Lyons evinces, it was a beautiful style and had its most serious defender in Charles Dickens\(^2\) who criticized the flatness of the ornament being practiced in the 1840s. A. W. N. Pugin was the leading exponent and reviver of this flat style of ornament, which had its historical roots in the heraldry of the Middle Ages (Fig. 31).
Pugin's designs (Fig. 32) oppose the artistic suppositions of naturalism. Pugin argued in his *Floriated Ornament* of 1849 for two basic rules which became incorporated into High Victorian conventionalism: flatness and the geometric distribution of the floral or foliage motif.

The Goths disposed the leaves and flowers of which their design was composed into geometrical forms and figures, carefully arranging the stems and component parts so as to fill up the space they were intended to enrich; and they were represented in such a manner as not to destroy the consistency of the particular feature or object they were employed to decorate, by merely imitative rotundity or shadows; for instance, a panel [sic], which by its very construction is flat, would be ornamented by leaves or flowers drawn out or extended, so as to display their geometrical forms on a flat surface.³

Here Pugin describes the alternate floral tradition to naturalism which he developed out of his heraldic and emblematic styles of ornament. The heraldic refers to his secular designs; the emblematic to his religious figure-ground designs where the motifs are charged with symbolic significance creating moral emblems or messages for religious devotion. Pugin's theory of flatness was adopted by Jones and the Schools of Design under
Henry Cole and Richard Redgrave as axiomatic. Indeed, Sir Nikolaus Pevsner has pointed out that flatness has been an ideal of English art since the Middle Ages; 4 in any event, flatness was revived as a primary rule of conventionalization in the late 1840s after Pugin had argued for flatness in Medieval design as early as 1841. Jones refined this criterion in the Grammar to a more optically charged surface without violating the principle of flatness in ornamental conventionalizations of nature. Yet, as we shall see in the next chapter, his use of color rendered his designs fractal, or at least hedging towards three-dimensionality.

Of course the revival of nature as a subject in ornament during the late 1840s had its roots in the Romantic vision of nature as epitomized in the works of Wordsworth and Coleridge. The mantle of these early Romantics fell on John Ruskin, art critic, social philosopher, educator and a major voice in the architectural currents of his age. Ruskin's ideas were directly opposed to Jones and the Cole circle, but as Victorians both factions shared a vested interest in nature and conventionalization. Ruskin's "Law of Help" which informed his ideal or morality in nature, devolved from his observations of plants and clarifies his opposition to Owen Jones and the Grammar of Ornament if his powerful social argument that is also being advanced may be set aside. "In a plant," Ruskin wrote, "the taking away of any one part does injury to the rest...the power which the several portions of the plant to help each other, we call life...composition may best be defined as the help of everything in the picture by everything else." When Ruskin directed his drawing students of the mid 1850s to the subject of nature, he was not insensitive to the need for some degree of "conventionalism" in order to "seize...the vital truth in...the rendering of every natural form."
His urging students "to the observance of characteristic points, and the attainment of concise methods" was given with the awareness that "no detail can be as strongly expressed in drawing as it is in reality." That he pushed his students to draw nature "completely and unalteringly" without "exaggeration of force or colour in the nearer parts", reveals a reverence for nature morally offended by Dyce's the "abstractive" method of Dyce which simplified natural forms to their essentials and, hence, subordinated the integrity and life of the whole plant to the end of ornamentation. Ornament generally, for Ruskin, had to "consist of such studious arrangements of form as are imitative or suggestive of those which are commonest among natural existence." In fact, Ruskin developed a hierarchy of ornament in his *Stones of Venice* which placed ornament based upon geometry on the lowest scale and ornament based upon higher forms of life at the top:

- Abstract lines
- Forms of Earth (Crystals)
- Forms of Water (Waves)
- Forms of Fire (Flames and Rays)
- Forms of Air (Clouds)
- Organic forms (Shells)
- Fish
- Reptiles and Insects
- Vegetation A. Stems and Trunks
- Vegetation B. Foliage
- Birds
- Mammalian Animals and Man

Although Ruskin was sympathetic initially to the conventionalized style of ornament being developed by Jones, it is quite clear, from his theory of ornament, that the more conventionalized phases of ornament were inferior to those higher up in the hierarchy. Again, in another listing from the "Lamp of Beauty", Ruskin gives organic form derived from nature preeminence:
Organic form dominant  
Organic form sub-dominant  
Organic form abstracted to outline  
Organic form entirely lost.  
Geometrical patterns...in the most vivid colour.\textsuperscript{13}

The kind of ornament recommended in Jones's \textit{Grammar} most closely fits Ruskin's category 3 and category 4: abstraction and geometry being the two dominant visual characteristics of styles of ornament which had been conventionalized from nature in the past.

\textbf{Towards the Conventionalization of Aesthetic Form in the \textit{Grammar}}

Jones and Ruskin agree on some basic Victorian issues with respect to ornament, although the balance of issues is certainly one of disagreement. First, they both agreed in the potential for ornament derived from nature, althoughn Ruskin was against the conventionalization of nature being extreme or severe enough to lead to a new style of ornament -- historical styles such as the Pisan Romanesque or the Venetian Trecento Gothic were perfectly appropriate for Ruskin's Victorian style. But the source of that style for Ruskin, Pugin, and Jones lay in nature. Of more significance is Jones's agreement with Ruskin's assertion that "noble design may always be told by the back of a single leaf."\textsuperscript{14} Jones was more specific, more formal and more aesthetic in his description of the same assertion in the \textit{Grammar}. Moreover, Jones significantly differs from Ruskin in the tactics of his use of nature. Nature as a source of inspiration for ornament appears after the study of the history of ornament, as the most fertile source for all the principles dealing with the distribution of form:
The single example of the chestnut leaf (Fig. 33) contains the whole of the laws which are to be found in Nature; no art can rival the perfect proportional distribution of the areas, the radiation from the parent stem, the tangential curvatures of the lines, or the even distribution of the surface decoration. We may gather this from a single leaf. But if we further study the law of their growth, we may see in an assemblage of leaves of the vine or the ivy the same law which prevails also in the assemblage of leaves. As in the chestnut leaf...the area of each lobe diminishes in equal proportion as it approaches the stem; so in any combination of leaves, each leaf is always in harmony with the group; as in one leaf the areas are so perfectly distributed that repose of the eye is maintained, it is equally so in the group; we never find a disproportionate leaf interfering to destroy the repose of the group. Grammar, 157.

Not all the faculty of the Schools of Design agreed with Jones's assertion that there was "tangential curvatures of the lines:" J. K. Colling, who was an authority on conventionalized foliage of the Middle Ages took strong exception to an important principle of design which Jones found in chestnut leaves. In the Builder of 1857, Colling pointed out that nature could generate designs based on the right-angle rather than the acute angle advocated by Jones. More importantly, Colling pointed to a fallacy or weakness in Jones's belief in nature's principles governing design: nature could prove or legitimize any principles of art in design. Such an approach to design could reintroduce naturalism into the conventionalizing process. Although Owen Jones thought that tangential radiation of lines from a parent stem at acute angles to be a natural law (and Colling is
really trying to prove an exception in nature to be a law in design and, therefore, that there is no simple "law of nature" in the sense which Owen Jones used it), he also observed that the oriental tradition accorded with this ornamental fact. "All functions of curved lines with curved" Jones writes in proposition 12, "or of curved lines with straight should be tangential to each other. Natural law. Oriental practice in accordance with it." The facts of the history of ornament supported a natural law in the growth of a plant; Colling's argument lacks the historical validity of ornamental fact to support his conventionalization. This emphasis on historical and empirical evidence in the Grammar proves further that Jones condemned as exceptional and without universal merit. Both Colling's right angled approach to the arabesque, and the Turkish reentry curve also employed by the Elizabethans (Proposition 12) justified Jones's belief that an ornament appropriate to the Victorian age should be jointly based on the history of ornament as well as upon nature. It is possible to conclude from Proposition 12 just how important natural laws were for his formalist conventionalization of rules of art: they legitimized the role of the Oriental styles and the principles of their decorative arts in the process of conventionalizing. Proposition 12 relates most directly with two other propositions dealing with nature and conventionalization, both of which are also rooted in Oriental practice in the Decorative Arts. Proposition 11, which states that: "In surface decoration all lines should flow out of a parent stem. Every ornament, however distant, should be traced to its branch and root. Oriental practice," emphasizes the Oriental monopoly on the arabesque after the Byzantine era had passed on the chastened continuous stem to the decorative arts of Cairo. But the form of the
arabesque is to be inferred not only from Proposition 11, but also Proposition 12 which discusses the junction of the minor tendrils with the parent stem.

The arabesque is predicated on the principles of natural growth as demonstrated in nature. The use of the arabesque for decorative purposes is frequently applied to irregular surfaces to be ornamented, although the Indians conventionalized brilliantly with the arabesque parent stem in regular formats. The bias of course is towards flatness, because the alternating spirals of the continuous stem and its tendrils describe a two-dimensional tautness of lyrical lines across the surface. The distribution of the ornaments of conventionalized flowers and leaves from nature across the surface happens at regular intervals which can be geometrically plotted, because the continuous parent stem unfolds with regularity on the two-dimensional plane.

The consideration of the fundamental qualities of the surface where ornament is informed by principles deriving from nature leads to an analysis of the fundamental qualities of the ornamental motif itself. Jones's Proposition 13, the last of the three propositions relating to the conventionalization of form, deals with the idealization of the ornamental image: “Flowers or other natural objects should not be used as ornament, but conventional representations founded upon them sufficiently suggestive to convey the intended image to the mind, without destroying the unity of the object they are employed to decorate. Universally obeyed in the best period of Art, equally violated when Art declines.”

Conventional representations sufficiently suggestive to convey the image to the mind denotes the degree of abstraction from nature to a conventional motif in the design
recommended by Jones. The key was just enough abstraction of the ornamental motif to suggest an ideal image by means of strong visual sensations. Too much abstraction would lose the connection between the mental image of the flower and the object in nature and therefore the delight in correspondences, an aspect of Egyptian ornament which Jones admired, would be lost. The degree of conventionalization proposed by Jones was in any event too extreme for Ruskin, and he urged his students in 1858 to "cast away with utter scorn the geometry and legalism" of conventionalized design which he saw as the "dregs of corrupted knowledge." At the basis of the ornamental motif conventionalized from nature was the inherent schema or structure of the ornament, the covert or inherent geometry analyzed by Dr. Christopher Dresser in Plate XCVIII of the Grammar, (Fig.34).
The only fully colored plate among the ten on Nature in the Grammar, Dresser's reveals the inherent structure of design of flora, from the bud to full flower. This use of covert, structural geometry was first exploited in detail by A. W. N. Pugin in his *Floriated Ornament* of 1849. But the most succinct conventional analysis of covert geometry remains
Dresser's plate on the flora and fauna of the British Isles. Hence, if nature is one source of conventionalization, geometry is the other. Nature and geometry together generate the ideal motif. At the same time that geometry provides the primary means of obtaining conventional form it is also the major conventionalizing characteristic of field design. Geometry is primarily, but not always, employed covertly in the conventionalizing of ornamental motifs from nature, although the conventionalized image could also be so abstract as to show only the purely geometrical schema of its original form. In the history of ornament, the conventionalizing process has both a conservative, repetitive and imitative tradition, and an abstracting one where the ornament was conventionalized over time beyond the recognition of its original prototype, 18 as Jones noticed in connection with Arabian ornament and its origins in the Greek anthemion. The conservative tradition would keep to covert geometry in its conventional forms, and over time the conservative force of habit would reduplicate the conventions intact as the Byzantine style perfectly illustrates in the history of painting. Abstract traditions in ornament tend towards geometry, and indeed almost half of the Grammar shows pure geometric motifs in either simple or complex forms.

**Conventionalization and History**

It was precisely the formal quality of conventionalized flatness that Ruskin decried in his lecture on "Modern Manufacture and Design" of 1859. At that time he belittled the creative process of conventionalization and reaffirmed the greater genius of three-dimensional design in decoration. The perfection required of conventional art was in
direct conflict with the craft aesthetic of Ruskin's medieval workman. Joy of work and ornament that was possible to make are recommended in his *Seven Lamps of Architecture*. Ruskin knew full well, as did Morris and the Arts and Crafts Movement later, that this approach would lead to an essential simplification of ornament if not its elimination from the object. The Schools of Design, on the other hand, valued a certain complexity which could only be achieved practically by the use of the machine. The Schools of Design were established in 1837 upon the recommendation of the liberal Select Committee on Arts and Manufactures, which investigated during the late 1830s the relationship of design to the commercial exports of British manufactures. Ceramics, glass, metalwork, furniture and, most importantly for industrial manufacture, textiles were all dependent on ornamental design. The original School of Design, established at Somerset House, emphasized the workshop during the Dyce experiment\(^{18}\) which lasted from 1838-43; in other words the technical and machine approach to design. Although a Nazarene painter himself, Dyce advocated the distinction between beauty in the Fine Arts and beauty in the Decorative Arts. Dyce became an ally of Henry Cole when Cole turned his attention to the artistic and political reform of the School of Design in 1849. Cole used *The Journal of Design* as his platform. He attracted a talented community of ornamentalists, including Gottfried Semper (who briefly reintroduced the Dyce experiment from 1852-54), Thomas Huxley, Christopher Dresser, Richard Redgrave, and by his adoption of the *Grammar* as the School's handbook on conventionalized design, Owen Jones. Cole was to oversee almost two hundred Schools of Design at the time of his retirement, all committed to his progressive approach to ornament. Through conventionalization, Jones, however, remained
an Orientalist and an eclectic; the Schools of Design under Cole chose to foster a neo-Renaissance ornament and design.

The Grammar may be roughly divided in its kinds of ornaments between those which derive from flowers and leaves and those which derive from geometry. Four major types of ornament not originating in the conventionalization of natural foliage and flora are consistently illustrated in the Grammar. These types of ornamental motif are the fret, the diaper, the chevron and the rosette. To take the simplest motif first, sixty-four examples of the chevron are to be found in eleven styles: that of the savage tribes of the Polynesia, as well as Egyptian, Greek, Pompeian, Byzantine, Persian, Hindu, Indian, Chinese, words the technical and machine approach to design. Only a few variations obtain in conservative, styleless, universal ornament. It is an obvious example of Owen Jones's all-important proposition on the relationship of the ornamental motif to geometry: "All ornament should be based upon a geometrical construction" (Proposition 8). If geometry plays a more or less covert role in conventionalizations of ornamental motifs from nature, geometry can also be overt in the structure of the ornament. The rosette with its divisions of the circle into equal parts is an example of an almost purely geometrical motif which has, nevertheless, strong associations with flora: with this difference, that the rosette is the first motif to be borrowed from an original style and conventionalized by another style. This evolution in its form is historical, and the Assyrians, who borrowed it from the Egyptians, went on to greater elaborations but not to a greater understanding of the process of conventionalizing itself.
The third ornamental type based on pure geometry is the fret and its related form the interlace. One of the relationships in the Grammar that Jones observes is his triple comparison of the fretwork of the Greeks, the Chinese and the Yucatan. In fact, many historical styles exhibit the fret among their ornaments: The Egyptians, Pompeians, Romans, Byzantines, Arabs, Moors, Persians, Chinese, Goths as well as the Renaissance and Italian styles. The Grammar also illustrates many examples of the discontinuous fret (which Jones found imperfect) in the art of the Greeks, the Chinese, several variants from the Yucatan, and a Greek fragment from India. Far more important, and entirely dependent upon geometry and the field, are the roughly three hundred and seventy-five examples of diaper illustrated in the Grammar. Although a diaper might arguably be called a pattern rather than a motif or ornament, the visual evidence of the Grammar supports the idea that the diaper was employed as an ornament. To be sure, the diaper becomes increasingly important in its more complex manifestations in Arabic and Moorish art as a system for the distribution of ornament. Two important ambiguities occur in the study of diaper work in the Grammar: 1) the point at which a change in scale transforms the diaper ornament into a pattern proper; and 2) the relationship of the motif to the diaper in the complex patterns of the Arabs, Moors and Elizabethans, where part of the motif doubles as part of the diaper. Diapers appear in the Grammar in seventeen of the illustrated historical styles, excepting only the Roman and the Italian. Constant, conservative classic diapers such as the checkerboard pattern of the Egyptians can be traced intact through the Occidental styles until the Renaissance, while more or less complex geometries can be studied in most Oriental styles. These four types of ornamental motif, with their important stylistic variations through the ages, and in different cultures, and the issues they raise with respect to conventionalization and invention refute
Jones's claim that ornamental types are invariably based upon the foliage and flora of nature. These four significant conservative types of ornament and their variations in the *Grammar* demonstrate that Jones devotes a substantial portion of the *Grammar* to pure, abstract ornament. Geometry, in fact, constitutes one of the major biases of the *Grammar*, whether in its more obvious form such as the fret, the chevron, and the diaper, or in its more subtle workings in the underlying covert geometric schema of the rosette or Tudor rose.

Four of the eight propositions on the conventionalization of form in the *Grammar* (Propositions 6-13) deal in particular with the creation of the ornamental motif, the essential building block in field design. These four propositions are based on empirical evidence, either involving nature as a subject or one or more styles from the history of ornament. These propositions are scientific in form and intent. By scientific, I mean the eighteenth-century definition by Dr. Samuel Johnson of science being art according to principles. It is no accident that this "conventionalization" articulated by Cole and his circle also means art according to principles. By definition, to conventionalize is to be scientific. In the crucial term of conventionalization, scientific approaches to the genesis of an original style of ornament were sanctioned by the very theory upon which it was based. By conventionalization Jones did not go as far as Ralph Wornum, the librarian at the Schools of Design in South Kensington, who wrote in 1856, that "a plant is said to be conventionally treated when the natural order of its growth or development is disregarded." Jones's intervention in the design by means of an ideal order based on the compass and the rule did not neglect the natural order of growth of a plant. Wornum, no doubt, refers to the accidental habits of nature; but, Jones went further in his conventionalization in describing the universal principles of nature, the
spiritual qualities of the plant, and based his conventionalization on these empirically derived principles.

The historicizing aspect of the *Grammar* emphasizes the influence of style in conventionalization. In the example from different styles which the *Grammar* gives of basic motifs, some motifs are changeless, or nearly so during the process of adaptation and stylization in successive styles of ornament. Some motifs on the other hand become transformed beyond recognition.

The Greek anthemion is a case in point, surviving in an adapted form to the Indian style, but transformed into another motif altogether in the Arabic style of ornament.

Stylization implies a historical context, the stylizing within the conventions of a given historical style, such as the Greek or Moorish or Medieval. Jones was conversant with the conventional forms in these styles and more besides. His eclecticism was not limited to conventional forms in a given style; but
he created ornament in a variety of styles from the occident and orient. His eclecticism is beautifully present in the Lépec fireplace designed by Jones for Mr. Arthur Morrison, M. P., at 16 Carleton House Terrace about 1867. The exquisitely enameled fireplace features a lintel ornamented by Greek and Chinese forms intermingling in the same design (Fig. 35): the pale secondary colors and the discontinuous fret are Chinese; the anthemion pattern is Greek (Fig. 36 below).

The same eclecticism prevails in the decoration of 16 Carleton House Terrace, where Moorish ceilings interface with Greek cornices and covings rimmed at the dado by Egyptian inlaid woodwork (Figs. 37 and 38)
It is as if the Grammar had been opened at successive styles of ornament. History in ornament was employed here to signify a collective of perfection, in style, a synthesis of achievement in ornament, each style of which was designated to the element of the over-all design most suited to display its particular stylistic conventions. The styles cohere because they are presumed to be equivalent in perfection, capable of harmonious co-existence in close proximity to one another because each represents the pinnacle of achievement in the history of ornament.

History, or more specifically, the stylistic qualities attributed to ornaments deriving from different historical sources, begins to play an important role in the culture of the Victorians in the 1850s with professorships in the History of Art being established in the 1860s at Oxford and at Cambridge Universities. The discipline of history itself at the same time emerged among the tripos at Oxford in the 1850s and after the contributions of Voltaire, Vico and Gibbon of the eighteenth century, history began to play an important rationalizing and legitimizing role in the culture of the
age. Certainly, the impact of the study of historical styles of the ornament in the Grammar was markedly felt at the Schools of Design. While the attention to Islamic styles in the nineteenth century was continued until the turn of the century, the study of Chinese initiated by Jones in 1836 led on to a thorough study and adaptation of the Japanese style during the Aesthetic Movement of the 1870s. And although examples of conventionalized design in the Grammar go back to Egypt, the principles of ornament appropriate to and necessary for conventionalized design make their first inclusive appearance after the introduction of the Grammar. From that point on, conventionalization relied on principles deduced from prior conventional styles of ornament as well as nature. This is the essential distinction made by Redgrave in his Manual of Design: that history was as valid a source as nature for determining principles of ornament necessary for conventional design.

Two possible avenues devolved to designers themselves with the acceptance of history as a guide for empirical studies of ornament: revivalism and eclecticism. The Grammar represents these twin aspects of nineteenth century design consummately. To take the simpler of the two, revivalism entailed the commitment on the part of the designer to working within the restraints of one given style. The various revivals of the Victorian era, the Greek, Reformed Gothic, Rococo, and Renaissance have this in common: that the architect or designer constrain himself to the historical dictates, the visual dynamics and principles of a particular style. There is a subtle relationship between revival and eclecticism to the extent that the two most committed revivalists of the age, A. W. N. Pugin and John Ruskin, were also eclectic within the constraints of the Medieval style. Jones's eclecticism was more typical. He could design in a number of styles: the Egyptian, the Greek, the Pompeian and Etruscan, the Byzantine, the Medieval as well as in the various
oriental styles. Or, an eclectic could mix styles freely in a single work such as 16, Carleton House Terrace. Facility in revivalism and eclecticism came with the greater historical awareness, as the nineteen historical styles of the Grammar testify. Yet conventionalization implies novelty and the transcendence in design of historical limitations which dictate style.

The shift in emphasis on historical studies involved the refining of a certain dilettante approach to history known as antiquarianism in the eighteenth century to the more scientific and secure foundations of archaeology in the early and mid-nineteenth century. The changes in attitude, awareness and visual presentation are obvious in the survey of the historiography of ornament in the nineteenth century. Specific architectural measurement and reproductive plaster castwork typify Jones's and Jules Goury's work at the Alhambra in the mid-1830s: the same precision of detail is also present in Austin Layard's rare Monuments of Nineveh (London, 1849) and Penrose's Principles of Athenian Architecture (London, 1852). Correctness of detail based upon measured drawings and polychromatic research best describes the illustrations in these great source books ornament in the nineteenth century. Despite the growing trend towards monographic studies of monuments or styles, the Grammar of Ornament dealt with the styles of ornament in history more comprehensively and thoroughly than any folio on ornament before it. The styles of the Ancients, the Orientals and the Occidentals are all there in one volume in a symbiotic, comparative relationship to one another. Only after the Grammar was published was an eclecticism of the depth and diversity of Jones's possible in Victorian art. Only the Grammar offered the revivalist such a repertoire of new forms and conventions, whether he be a Byzantine or Medievalist. The appeal to history cut both ways on the issues of revivalism and eclecticism, offering support for both endeavors equally in
the plates, yet theoretically rejecting these alternative approaches to design in favor of conventionalization in the text.

**Conventionalization and Modernism**

Conventionalization implied something more than geometry or the stylization of nature and historical precedents. It implied the creation of an ornament appropriate for its age, embodying the values and ideals of the culture which brought it to life and gave it form. It was for his modernism that the Ecclesiologists attacked Pugin for building "conventional" churches. Modernism implied the creation of a new style, a new ornament, new motifs for design through the process of conventionalization. But the "liberalizing" tendencies of conventionalization depend on how it is used. Stylization can be quite conservative i.e., it can provide a means for simplifying and making economically feasible complex ornament. It can represent a modest alteration of its starting points. Or it can be a means toward more radical innovation. Although conventionalization has its basis in the liberal philosophy of its age, it was presented by Jones and the Cole circle at the Schools of Design as essentially conservative reform. It is revolutionary in easy stages. It was the liberal philosophy associated with the conventionalization of the *Grammar* and its alliance with the scientific spirit, reform and the Industrial Revolution which led to its systematic attack by Ruskin who himself advocated a type of hieratical conventionalization in his *Seven Lamps* and the *Stones of Venice* before the appearance of the *Grammar* in 1856. Ruskin's criticism stems from his Burkean revulsion of the Indian Mutiny of 1856. He excoriated and dismissed the conventionalized Indian style of ornament as too "servile", too submissive for the architect ornamentalist or designer's ruling will. Ruskin argued most deeply for the individual will of
the craftsman for whom particular and peculiar eccentricities in the execution of the design could be discerned as a record of the delight of the artist.

The conventionalized or modern design being proposed by Jones and sanctioned by the Oriental styles of ornament was too complex, too exact and precise to allow for the idioidiosyncrasies of the workman. The geometric precision of conventionalized design also allowed for its ready adptation to the machine. At the Great Exposition of 1851, machine ornament had been primarily naturalistic; but, Jones's Grammar and the influence of the graduating students at the School of Design challenged naturalist design with conventional ornament appropriate to its time. Ruskin's objection to the new conventional machine design which O wen J o n e s  p r o p o s e d  w a s  a s  m u c h  s o c i a l  a s  a e s t h e t i c: "ornament...has two entirely distinct sources of agreeableness;" Ruskin wrote in his Seven Lamps, "one, that of the abstract beauty of its forms, which, for the present, we will suppose to be the same whether they come from the hand or the machine; the other, the sense of human labor and care spent upon it." Ruskin cared most for the evidence of human labor in execution and justified this assumption with the claim that "all cast and machine work is bad, as work...it is dishonest." The moral criticism precisely parallels Pugin's objection to classical design in his Contrasts of 1836. But no such moral objection existed for Jones whose primary concern in ornament was for the care and planning of the design. Ruskin valued in his aesthetic the craftsman who represented the best of the social tradition of the Middle Ages. Jones celebrated science, industry and commerce and meant t o  a l l y  h i s  a r t  a n d  h i s  p r i n c i p l e s  o f  c o n v e n t i o n a l i z a t i o n to these powerful forces of the nineteenth century. What he sought in his theory of architecture and ornament was a new approach expressive of these powers which were having such an influence on the institutions of the age. It was precisely this
alliance in the arts which Ruskin objected to: its scientific spirit, its extreme catholicity of styles, its liberal reforming impetus, its practiced adaptation to commerce and industry. These liberal alliances for art with the modern world, Ruskin, following the early Pugin, wished to check. Ruskin wanted the liberation of human craft labor in the arts; Jones wanted the discipline of human labor in relation to manufacture. Modes of adapting ornament to industry, not the social forces conditioning modern work, were the primary concerns for Jones.

The aim of the Grammar is the achievement of a new style (or new styles) of ornament by means of conventionalization based upon the compendium of styles. To repeat, the basic repertoire of forms conventionalized from nature in historical ornament were few indeed -- the lotus and papyrus of the Egyptians, the honeysuckle and acanthus leaf of the Greeks, the fleur-de-llys, the quatrefoil and the Tudor rose of the Middle Ages -- a handful of conventions based on nature through all the ages (see the "Universal Ornaments" of Chapter One). By looking closely at local foliage and flora Jones believed that a conventional form, the product of a decade-long search for an original ornament, would be generated according to his principles, and a style of architecture accommodating the new ornament created thereby. "We therefore think we are justified in the belief." Jones writes at the conclusion of the Grammar "that a new style of ornament may be produced independently of a new style of architecture; and, moreover, that it would be one of the readiest means of arriving at a new style." The strategic locations for such an invention were already isolated by Jones who specified the capital and the points of support for iron-and-glass architecture as being the most fruitful architectural elements to yield an original style of architecture. There is no doubt that the process of conventionalization advocated by the Grammar of Ornament and by the Schools of Design did, in fact, create a new
style--decried by Ruskin--noted in passing by Lewis F. Day, who referred to it as a "geometrical mania" and described by Charles Handley-Read as a Victorian geometrical style. But the basic building-block of conventional design, the ornamental motif, was further governed in the process of design by two aesthetic criteria which essentially discipline ornament in its application to undecorated form: fitness and propriety. There is an essential ambiguity as to the responsibilities of these two aesthetic factors. Fitness is the more functional term and propriety the more social term of the same condition. Fitness relates more to the specific and material ornament; propriety deals with the decorative system as a whole. Involved in these two aspects of design are interrelated questions of the rightness of ornament to the purpose, materials, form and status of the object decorated. A.W.N. Pugin employed these very canons of fitness and propriety to defend a picturesqueness for architecture based upon the requirements of convenience and planning, instead of the picturesqueness based on Romantic antiquarianism of eighteenth-century Gothickness meant, above all for Pugin, the adaptation of the ornament to the form or surface being decorated. If the form or surface was two dimensional (as it so frequently is in architecture and the decorative arts) then ornament was bound by the conventions of fitness to be similarly flat. Thus Pugin eliminated three-dimensional design with its false shadows from the province of his Medieval design, being the first to battle naturalism in ornament. Fitness in architecture had been a central principle for Pugin since his True Principles of 1841; what Jones did was to draw the parallel between architecture and the decorative arts and insist upon fitness as a requisite for any higher aesthetic for ornament: "As in Architecture, so all works of the Decorative Arts, should possess fitness, proportion, harmony, the result of all which is repose" (Proposition 3).
Certainly, Pugin's concerns for fitness and propriety in design were echoed more poetically by Ruskin who observed in his chapter on "Ornament" in the Stones of Venice that "the especial condition of true ornament is, that it be beautiful in its place, and no where else, and that it aid the effect of every portion of the building over which it has influence...and it is fitted for its service by what would be faults and deficiencies if it had no especial duty." Although Ruskin thought that "all delightful ornament itself is independent of the structure, and arrived at by powers of mind of a very different class from those which are necessary to give skill in architecture proper," yet, in terms of fitness, he sees applied ornament a subservient to, or in the service of, architecture. Ornament, although independent of architecture, must still be "fitted" to the naked form. There is still an inherent relationship between ornament and structure which Ruskin urges. Ruskin was, nevertheless, remarkably reticent and foresighted in separating ornament and the artistic gifts which go with its creation from architecture. Jones was tragically clearer in his statement of the relations of the decorative arts to architecture: ornament was secondary to the form to be decorated. The decorative arts served architecture: "The Decorative Arts arise from, and should properly be attendant upon, Architecture" (Proposition 1). Fitness requires for Jones the subordination of ornament to the form being decorated and requires further that the ornamental forms be adapted to the nature of the materials being employed and to the techniques which would execute the design. Service and proper attendance to architecture and object to be decorated on the part of ornament is of course a function of the propriety of the relationship between the Fine and the Decorative Arts. The liberal reformers in general, and the Grammar of Ornament in particular, maintained that ornament should be secondary to the object being decorated, sparing in its decoration if complex in the ornamental motifs themselves. Ornament should possess due deference to the function which the decorated
object was intended to perform. Propriety is a question of possessing in the ornamental design qualities and values proper to the utility of the decorated object, a sense of belonging to a hierarchy of ideals which make a more noble conception of life possible. Thus propriety is not only an aesthetic, but points towards an iconology of the decorative system. Propriety was of course the subject of George Eliot's novels and the correct moral relations between the decorative arts and architecture, the subject of Jones's basic principles of design. Propriety was not the ultimate aesthetic for Jones, but in the process of conventionalization it governed the relations between the decorative design and the object or space being ornamentalized. If fitness describes the conventionalizing of the ornamental forms in relation to the surface being decorated, propriety defines the relationship of the overall design to the function and utility of the object. Propriety required the moral obligation on the part of ornament to serve the object being decorated. Whereas fitness is intrinsic to the conventionalizing process of generating ornament, propriety is extrinsic to ornament, but intrinsic to the decorative program. The liberal reformers thus sought to bring about a major revolution in design by attending to basic aesthetic criteria which would govern ornament and decoration. Brent Brolin has recently pointed out the continuity of these design principles for twentieth-century Modern architecture. Modernism, however, stripped these principles of their appropriateness and relevance for ornament and decoration.

The result is a barren play of design principles in a field denuded of its content. The development of a modern style of ornament and decoration achieved its greatest results in Jones's original designs. Subsequent movements of architecture tended towards the elimination of ornament and the over-simplification of the decorative program. The influence of the Grammar is marked by the tragic impotence of Jones's dearest purpose, the creation of an ornament appropriate to its age as the anthemion had been for Greek civilization. Jones's conventionalization of
ornament was inevitably tied to a deeper decorative purpose, the creation of the field which is still relevant in quantum physics. The field, like the individual ornament upon which it is based, has an iconology and an iconography. It is in the field that the ornament acquires potency by repetition, what Bloomer calls "regulation" in decorative design. As such, decoration or the decorative field for Jones is an essential aspect of cultural memory, bringing to bear as it does a complete agenda of ornaments in one decorative system.

**The Conventionalization of Decoration: Field Theory**

The purpose of the *Grammar of Ornament* was not only the conventionalization of the color and form of an ornamental motif as illustrated by all the major styles of art, but also to set that new Victorian conventionalized motif into a coherent design which also accorded with the values and sentiments of its age: an original and Victorian design rather than the mere appropriation of historical and revival precedents. Of course, the new Victorian style did not reject history. History was, in fact, at the core of Victorian culture, and the encyclopedic nature of the *Grammar* accords with this preoccupation. The *Grammar* evidences the Victorian preoccupation with the civilizing influence of style, history and fantasy set in the context of the continuous examination of the natural sciences. In the *Grammar*, ornament derives as much from the science of color and geometry as from style and aesthetic intention. To understand this original Victorian style, variously described as geometric and exotic, one needs to understand the grammar or theory of the *Grammar*. Jones's presentation of ornament in the *Grammar* is typically the isolation of the individual ornamental motif in a comparative context with other singular motifs. Only rarely in the snippets of ornament which fill the plates of the *Grammar* does Owen Jones
illustrate the motif incorporated into the full field. Examples, however, do occur in the ornament of the Savage Tribes, Arabic, Moorish and Indian styles. However, field design is essential to Jones's ideas on the invention of ornament and on the ultimate state of repose which ornament and decoration is meant to bring about. The distribution of the motif pattern by geometrical means is crucial to the maintenance of a taut two-dimensionality of the surface critical to the capacity of the motif to sustain visual movement, and critical to the successful interaction of decorative field and ornamental motif. Even in grafting the axes or diapers of the field one creates flatness; then movement within this framework; finally the subtle interaction between motif and field in an organization in which the two are inseparable, rather than appearing as a dominant figure on a subordinate ground. A designer's knowledge of geometrical forms and constructions was fairly ubiquitous by the mid-century: D. R. Hay, the earliest Victorian to attempt to define form exclusively, according to geometrical construction had published his *Original Geometrical Diaper Designs* in 1844 and the *Decorator's Assistant* of 1847 claimed to be the "first work that has attempted to popularize" geometry for interior design. Geometry was first recognized as a characteristic style of mid-Victorian ornament by Lewis F. Day in rather disparaging terms. "The flattened floral style, which, one cannot say flourished, has died out," he claimed; "we have recovered from the geometric mania." Charles Handley-Read, one of the earliest modern historians of Victorian architecture, put his finger on the existence of the "geometric treatment of nature in pattern and ornament" by the High Victorians; but the description of the colored field in the theory of ornament of the *Grammar* has been largely neglected.
Given the tradition of geometry in architecture and ornamental design at the outset of the High Victorian period, it is hardly surprising to find geometry used in ornament by A. W. N. Pugin and Owen Jones, both of whom had been trained to the rule and compass of architecture. The predominance of geometry in design at the mid-century can be further accounted for by the demand of the aesthetic and architectural principle of fitness for flatness of ornament when decorating two-dimensional surfaces. "Flatness and geometric formalization" are the twin ideals of this Victorian style as Handley-Read points out because they mutually reinforce one another; if Euclidian it must de facto be flat. But the descriptions of the High Victorian geometric style in design have not been distinguished beyond these salient characteristics.

For example, Pugin and Jones use geometry differently. Pugin, along with such Gothic Revivalists as G. E. Street and William Butterfield, applies geometry directly and principally to the ornament. Ornamental motifs may conform to the geometric subdivisions which impose upon and radiate out from the central emblematic feature of the design, but the net effect remains one of superimposing geometry on the ornament. In less complex designs, the motif in nature is flat. These emblems are then incorporated into a simple diaper pattern to achieve a working design. The principal feature of the design remains the iconic heraldicized emblem and not the incorporation of the emblem as pattern on the wall except as mere repetition. Jones's use of geometry is more subtle and complex than Pugin's. In the first volume of the Journal of Design and Manufacture (1849) edited by Jones's friend and fellow liberal Henry H. Cole, a position paper called for the "distributive treatment" of ornament:

Ornament is applied to large surfaces in two modes: it is either gathered into groups with the light and the dark, form and colour, contrasting strongly with the ground, on which the groups are sparingly distributed, and which may be
called the individual or contrasted manner [typical of Pugin's emblematic design], or it is spread equally over the whole surface, the forms of the ornament nearly covering the ground, and the contrasts subdued and simple, which we may call the individual or distributive manner [typical of Jones's field design]... it must at once be apparent, that the general equality and suppressed effect of the distributive manner is in accordance with that secondary nature of ornament which we have been advocating.  

It is a major contribution of Jones's that, with his vast archaeological knowledge of the Alhambra and his education as an architect, he brought an appreciation of the visual power of complex geometrical patterns, or distributive diaplers, to Mid-Victorian ornament. The Moors, Jones claimed in a lecture in December of 1856, publicizing the printing of the Grammar, teach us "the great powers of geometrical combination, and the immense value of the principle of repetition of most simple elements." The geometrical organization of field design requires subordinate conventional motif ornamentation, This is an essential difference between Pugin's emblematic design based upon the heraldic style, symbolic or imagistic in its content, which is "contrastive" in its execution, and Jones's sensationist design based upon the subordination of ornament qua motif to geometry and color, which is "distributive" in execution and aesthetic in its artistic intent. For Pugin, the conventionalized emblem is principal and geometry the means for disciplining and flattening the ornament: the design is truly two-dimensional. For Jones, the conventionalized ornamental motif must be secondary to color and to the geometrical means of its distribution as pattern on the surface. The interaction of geometry and ornamental motif introduces yet a further and more crucial distinction between the two modes of reform ornament of mid-nineteenth century England. Pugin's contrasted ornament required a subordinate "ground", the principal focus being on the emblem and not the ground. However, Jones's appropriation of the whole surface by means of geometry and distributive color and the consequent "secondary nature"
of the motif results not in a contrasted secondary ground, but in an integral “field”\textsuperscript{37}. In Jones's approach the ground all but disappears, while helping in the distribution of the ornamental motifs by diaper grids over the whole surface.

According to Owen Jones, the Moors constructed their geometrical ornament upon a simple principle: the designs “all arise from the intersection of equidistant lines around fixed centres.”\textsuperscript{38} The fixed centers were determined in advance by the simplest of the geometric diaper grids which overlay the design. Jones thought that geometrical combinations were infinite (or, in his words, "infinitive")\textsuperscript{39}. However, subsequent investigation proves that only seventeen ornamental motifs tested by principles of "reflection" and "motion" are possible\textsuperscript{40}. The mid-Victorians appreciated that the complex distributive diaper grids reinforced the surface as "surface" and therefore directly engaged the "background" on which Pugin placed his flattened emblems. Diaper grids created an optical stretch caused by the rigid adherence of the two-dimensional grid with the two-dimensional surface it decorated. The geometry disciplined the surface, motif and color of the designs. What Jones meant by the geometrical construction of all ornament (Proposition 8) was not only the conventionalized ornamental motif which constituted the basic building block of the pattern, but also the geometric means for distributing the motif over the surface of the design. Geometry, so important for the construction of the conventional motif and the distribution of color, is the primary means for organizing the design into a coherent whole.

Hence, the totality of the visual dynamic in field design, unnoted heretofore save in passing, is directly related to the construction of the conventional ornament, to the function and operation of color in the design, and to the geometrical organization of the regulating diaper
pattern. Field ornament, unlike the emblematic design work characteristic of Pugin, Street, Scott and Butterfield, is not perfectly flat: minimal intrusion towards the third dimension occurs in field design in many ways but principally because the two-dimensional diaper grid which conditions the ornament of the field is never employed alone but usually in conjunction with another layer, or several layers of diapering. The sum total of the overlay of diapers is in the abstract two dimensional, but the net effect when color is introduced to the design, is an overlapping of diapers, such as occurs in a tartan plaid. This overlapping suggests various slices of the realm existing between the second and the third dimensions, called "fractal mathematics" by modern geometers, which defies pure flatness. Some texture, some limited depth is brought about by the implications of relief given by the tendency of colors to recede if cool like blue, or advance if warm like yellow. These two complement of effects in the color of the field frequently establishes a flat plane for a single color which is overlaid by another plane of color. But there is a further complexity introduced when color and geometry cooperate in the design as they do at the Alhambra. Moorish ornament has precisely this play of planes, of almost perfect flatness, conditioned by the geometry of its ornament (Fig. 39).
Moorish ornament is geometrically constrained by the diaper, yet in movement because of the dynamics of the motif; and, flat by the nature of the pattern but suggesting depths within the flatness by the overlapping diapers. The ornaments from diapers in the Alhambra collected together on Plate 41 in the Grammar (see Fig. 14 again) also show one further feature of the motif: their abstraction and fragmentation create sub-motifs, each with its own color-plane and each partaking in a secondary and tertiary overlay of diapers. This complexity of abstract motifs organized in a dominant diaper ornament is therefore sensationist in the component sub-motif in form as well as color. The abstraction of the primary ornamental motif of the diaper into their secondary and tertiary alliance with covert diapers in the pattern appeals to the creative imagination in the desire to have detail revealed in the design. These details are not noticed from a distance: only the sense that there is a greater complexity to the design than the primary diaper. The occlusion of detail from a distance relates to what Jones describes as "neutralization" in color. This neutralization and its consequent "bloom" are essential to the space-making qualities of the decorative field. Hence, the abstract forms which create the dominant ornamental motif of the diaper do not reveal themselves at a distance. Only up close, the way Jones presented the sixteen diaper patterns from the Alhambra in the Grammar, can the complexity of the ornamental motif be fully understood in relation to the secondary patterns being generated within the principal ornament itself.

This kind of subtlety in ornamental design, typical of the field design being proposed by the conventionalization of ornament in the Grammar has its counterpart in the system of proportions proposed by Jones. In Proposition 9, he describes the best proportions as the ones which would be the most difficult for the eye to detect. Simple proportions such
as halves and quarters were too obvious in field design: instead the golden proportions based on thirds should rule the design. The visual complexity of field design (Fig. 40 below) was further enhanced by proportions which were initially covert to the eye.

The difficulty of grasping these proportions and the fugitive secondary patterns which exist in the field stimulate the mind to analyze and inspect the design in its fullness. Visual and intellectual effort on behalf of the beholder is required in experiencing the design of the decorative field.

Decorative Borders and Field Theory

The most significant distinction to be made between the Victorian geometric styles of emblemism and field design is the enclosure of the field by means of borders which give renewed visual interest in the design. Emblematic design ignores the extent of the ground. The emblem itself and not its repeat is of primary importance in emblematic or heraldic design, whereas the distribution of the ornament is more important than the ornament itself in the decorative field. The *Grammar of Ornament* is in perfect balance between the illustrations of the ornaments which supply the motif for the field either directly or indirectly, and the ornaments which supply the borders for those fields. A field needs a border in order to be distributive in a discriminating and disciplined way. In heraldic design the tension of the ground is most intense where the emblematic figure and ground meet at the edges of emblem and ground. Visual attention is primarily directed at an understanding of the symbols of the emblem. Once the moralistic message has been gleaned, the repetition of the emblem to "fill" a surface
(where required) is only a secondary consideration. Field design also operates visually at the edges of the design, but the edges in field design are not those of a play of figure and ground but the edge of the expanse of the field and the borders which contain this energetic advance of decorated surface. Borders renew the interest in ornamental motif and pattern after the eye has been fatigued by the exploration of the principal field.

Emblematic designs may also have borders to terminate the expanse of the ornaments, but the attitude towards and conception of borders is quite different in emblematic and field design. In emblematic ornament the expanse of the simple diaper is terminated artificially at the edges of the design by simple borders which act as a convention in relation to the diaper. The border is not articulated in such a way as to compete with the visual message of the emblematic motif; rather, the border is a natural consequence to the simple repeat which distributes the emblem. Field design on the other hand, actively encourages multiple borders because it is by staking out the area that the "field" is made. In field design, the border and the diaper field cooperate to produce an optical fillip where the diaper field meets the border. The border is inseparable from the field it contains and terminates. Borders for field design are invariably more complex than the simplistic borders that terminate emblematic design. Moreover, the many registers of the borders which characterize most Victorian design compete directly with the field for visual prominence in the design. In field design therefore, the ornamentor had a double obligation: to the field and its complex of diapers and motifs; and to the border which establishes and terminates the field by its profusion of registers.
A field design for silk by Jones (Fig. 41) illustrates perfectly the three functions of geometry in field design which J. K. Colling observed in his Art Foliage of 1863:

Geometrical lines and forms are applied in decoration mainly for three distinct purposes. First, they serve to divide surfaces into separate parts by combination and repetition of forms, upon which to apply foliated or other ornamentations -- technically called diaper -- or field design. Second, by repetition of form in one continuous direction only, and applied to borders, margins, mouldings, string courses, and the like. Third, by radiation from a centre, or on each side of a centre line, as applied to centres of flowers, bosses, and other similar purposes.  

Colling was a violent opponent of Jones; yet as a teacher on ornament at the South Kensington School of Design he still advances the basic features of field design and the importance of geometry to all aspects of the field. The border terminates by perpendicular or horizontal opposition the main expansion of the diaper which forms the basic field. As Collins pointed out, borders form a continuous pattern in one direction at a time only. The horizontal or the vertical axes are the only two directions accessible to the rectangular border.

Where circular, oval, or triangular fields are established in design, the borders conform to the exceptional format in the same manner as in rectangular formats. This is achieved in the border by perpendicular opposition to the diaper field which transforms the diagonal expanse of the field into algebraic, linear formats organized hierarchically according to registers. In a ceiling design (Fig. 49)?, Jones has created two basic borders for his principal decorative medallion: one in contrasting colors to the blue field contains a border of Greek frets terminating in the corner bosses to create secondary points of optical interest. Color distinguishes the border from the field by establishing contrasts (blue and red) between the field and the edge of its expanse.
But the renewed interest in conventional ornament which occurs with the introduction of the border is as much algebraic as it is geometric. Borders present pure patterns in a number of different equations or repetitive groupings (Fig. 42 below).
The plate of Pompeian borders illustrated in the *Grammar* presents Greek-influenced patterns in the full variety of their rhythmic groupings. Patterns may be simple such as A B A B or A b A b or complex, more highly developed and sophisticated such as in A b C b A where, for example, the Egyptian lotus and the Greek anthemion work in a pattern which has endured the vagaries of style and civilization to posit its universal A B A B pattern in Owen Jones’s original Victorian design for a cornice or coving (Fig. 43).

What Owen Jones’s original coving design reveals is a border within a border; a basic decorative elaboration on the theme of border. Note the disciplining, flattening function of the repetition of abstract horizontal two-dimensional lines in registers elaborated by abstract beading and no less than three subordinate patterns each far more abstract than the conventional floral ornament that decorates the principal pattern of the design.

Jones’s carpet (Fig. 41 above) demonstrates that diaper ornament could also be used for borders and such common place motifs as the chevron make excellent margin borders to the principal decoration of the page. Jones designed many beautiful books with ornamental margins such as the illustrations from *Joseph and His Brethren* ornamented by him in 1862 in the conventionalized Egyptian style. There is no doubt but that the Victorian policy makers in design favored the creation of a conventionalized border based upon foliage and flora conventionalized from nature. However, the study of the *Grammar of Ornament* proved the existence of more timeless universal ornaments which had traditionally been employed as borders by decorative artists. By awakening the historical tradition in border design, the Victorian artists such as Jones were able to articulate and elaborate the decorative diaper field.
A Critique of Conventionalization

The most profound aspect of the *Grammar* is its theory of conventionalization as it applies to ornament and decoration. But it is a theory which has had mixed results in terms of influence. Le Corbusier seized on the field-making diaper to make it his exclusive system of decoration and his only ornament. From Jones's theory Corbusier took the implicit valuation of science, technology and commerce and again distorted Jones's original intention of original ornament to make these aspects of modern life the exclusive concerns of his building. Corbusier valued ornament in theory though he never practiced the art: it was decoration that he proscribed, although he was in effect a decorator whether he liked it or not. His use of the "accusing lines" of the grid is a stripped down version of Jones's field, stripped that is of the ornamental agenda. And. Corbusier realized the sublime quality of the grid, but employed it for its shock value and "terror" rather than for the quality of repose which it generates in more sympathetic hands. If Corbusier abused Jones's theory of conventionalization, Wright used the theory with greater sympathy and integrated it into his own theory of organic architecture. Wright claimed in the *Autobiography* to have introduced the *Grammar* to Sullivan; an extravagant claim, but it points out the importance of the *Grammar* for Wright as a young and aspiring architect. The most important aspect of the *Grammar* which Wright adopted in his organic theory is the aesthetic of repose. But Wright simplified the theory of conventionalization as Jones had proposed it to near essentials. Conventionalization for Wright meant the inner dynamic of nature, the inner life of a plant or tree. For Jones it had this meaning too, but so much more besides. What went wrong? Could the Moderns no longer read clearly?
After all, Jones's theory is set out with the precision of science; it is not encumbered with the purple prose of Ruskin. The problem is not so much in the writing I think as in the plates themselves.

The problem in other words was the subject of ornament. With the copying of ornament proscribed by conventionalization, the plates exist in a vacuum. They are there as historical documents of the past but have only formal relations to offer the designer or architect. Jones's theory of conventionalization stripped them of living significance; historical ornament is no longer vital. In the search for a modern style such ornament is an encumbrance. Since it can no longer be employed in Modern architecture, it belongs in the Museum or in the Library; no longer could it be applied to the building. Since Wright, who was trained as an ornamentalist under Sullivan, could not comprehend the specifics of the theory of conventionalization as applied to ornament and decoration, he tended to abandon decoration first of all, and after the textile-block houses of the 1920s, he tended to abandon ornament as well. Except for the ubiquitous grid of Jones's field, that is. The result of the rejection of ornament by Loos and the Modernists was monumental. It is tantamount to abandoning the past history of literature, of proscribing Chaucer, Shakespeare, Racine et al.; of banning not only books and ideas but authors as well. Since ornament is a part of the human language system, a threat to one language is a threat to them all. But we must be careful not to blame Jones for too much. His own practice remained in advance of his theory, and there he was inclusive of forms of ornament from the past. He realized after the *Grammar* that ornament from the past could be conventionalized as well. This is one of the significant lessons of the plates of the Grammar. What appears
to be the most crucial issue of conventionalization is its proscription against copying forms of ornament from the past. This ban underscores a negative attitude towards history itself. Modernism denies the historical past in any form. No longer does genius work to make the traditional relevant to the present: it denies tradition in any guise. It becomes questionable whether genius can operate under such constraints. A talent for engineering rather than architecture marks the productions of the Modernists.

There can be no architecture without ornament and decoration. By banning the material substance, meaning and iconology of ornament, Modernists following Jones preempted their building of spiritual value, psychological potency and cultural reference. The damage was even deeper than this: Modernists rejected the humanizing and discursive qualities of Architecture and set up the fiction of the Machine. The human body is not a machine; it is a synthesis of emotion, thought and spirit. The ornaments proscribed by the theory of conventionalization contain furthermore the wisdom of the past, and the act of their proscription severed the life of the present from that of the past. One of the significances of nineteenth-century architecture was the way it sought out past civilizations through archaeology and incorporated the ornaments of the past into their architecture; eclecticism was tempered by a modernist updating of ancient styles. There was a certain delight in the complexity of the iconographic program of ornament and decoration; thought was made visible and ornament served the intellectual and spiritual dimensions of human existence.

Yet, in Jones’s theory of conventionalization there were at least the formal conventions of ornaments of the past to sustain the continuity of past and present in the search for a modern
style of ornament. Jones's acumen was to discern in the ornament of the past certain formal
relations which they all had in common because ornaments of the past were all based on nature and natural observation. Because the theory of conventionalization is based on both nature and history it would be a major error to dismiss conventionalization because it proscribes the employment of specific historical ornaments. What an ornament of the twenty-first century needs to do is to reapply the theory of conventionalization to the universal ornaments of the past, and to resurrect the iconography of past civilizations in order to nourish and enrich the culture of the present. The focus of the theory of conventionalization on nature needs to be tempered with a benign influence of history. The art of the nineteenth century proved that civilization could have its culture and novelty at the same time. Romanticism has always been obsessed with novelty; but it never sought to deny history. Rather history provided much that was new in the nineteenth century. The tragedy of the two World Wars has been to deny our place in history and the relevance of history for our place in world civilization. One cannot correct this tragic myopia by proscribing the theory of conventionalization: the theory has its claim to universality. But the theory should be corrected of its mistaken proscription of historical ornament and applied as much to these ornaments as to nature. Then we would have our tradition updated and genius could apply itself to the problem of Architecture.

Even more problematic than the ban on historical, universal ornaments was the denial of decoration on the part of the Modernists. If Modernists could deny ornament its rightful and essential place in architecture they could with even greater vehemence deny the role of decoration in architecture. But to deny decoration is another way of denying
ornament which depends upon the decorative system for its distribution. It is the decorative system which orders and organizes the ornaments on the exterior and interior of buildings. Without decoration, ornament has no means of asserting its claim for our attention. Through ornament decoration honors the architectural host. Like ornament, decoration has its own iconography: for the field it takes on the iconography of justice, mercy and dispassion which it shares with the individual ornament of the diaper. Decoration provides the living environment for the individual microcosm, the ornament. In the field of conventionalized theory it allows for the successive miniaturization of ornamental forms, hinting at the infinitude of the microcosm as does Jones's favorite Islamic ornament by providing ever smaller gestalts for meditation and contemplation. Like the ornament itself the decorative system is "hybridistic" to borrow from Bloomer's ideas; decoration has its own agenda, program and meaning distinct from the ornament it distributes, yet it transforms the ornaments into a scheme of coherence and potency by its power to organize and order the ornaments in space or on the surface of buildings. Decoration is therefore the art of organizing information other than its own, and like ornament it organically humanizes space and form. Decoration is capable of honoring not only the beautiful, but the sublime, the memorial and the political. To banish decoration in architecture is to strip from' architecture the means of ordering ornament in the built environment: the result is not architecture at all, but mere building void of spirit, character and mood. Decoration is also fundamentally related to another agenda of architecture advocated by the Grammar, but neglected and even pilloried by the Modernists: color. It is to the conventionalization of color that we turn our attention in the next chapter, for Jones was one of the greatest
colorists have practiced the art of ornament and decoration which are the fundamental essentials of Architecture.

12 *Stones of Venice*, I, Ch. XX, 17.
13 *The Seven Lamps*, §137, 40. I would like to thank Prof. Kent Bloomer of Yale University for pointing out this reference to me.
14 *Seven Lamps*, §17, 90.
23 Ruskin, *Seven Lamps*, II,§19, 55-56.
28 *Ibid*.

Moore's widely read *Lalla Rookh*, of 1817, as well as the poems of Byron and Victor Hugo generated a new interest in the Islamic Middle-East to which Owen Jones responded with his *Alhambra* (London, 1836-45), the first example of true chromolithography in England. The first volume of 2000 copies was issued in a series of ten sheets from 1836-43 and was subscribed to by A. W. N. Pugin and Prince Albert, whose unfailing support for Moorish Art was terminated by premature death. Jones's very large and expensive folios, many of which were remaindered in 1856, still commanded the sum of £25-0-0 in 1875. Scholarly, archaeological, architectural and ornamental, the *Alhambra* effectively ended the dilettante antiquarianism which had persisted since the mid-eighteenth century until the 1840s. The sites, plans, sections and elevations were minutely and accurately engraved on copper and steel plates, The sixty-nine chromolithographed plates make extensive use of gold (gilt edging only recently being invented) with usually six to seven, but sometimes as many as eleven colors, impregnated or absorbed within the page yet still opaque in relation to one another, emphasizing the flatness, whereas the original Moorish ornament was in a very shallow relief. The sobering reticent taste of Arabic and Moorish ornament had a profound impact through Jones on the strident, excessive three-dimensional ornament of the early Victorian period. The progress of English design for the remainder of the century was toward the values of the quiet, the reticent and the discrete, and significantly from the Jones circle and the Schools of Design, the evidence of minimalism can be traced to the high degree of conventionalization obtained by Moorish and Arabic ornament in general.


"Field," a technical term used with respect to textiles and ornamental design differs from the ground of heraldic design in two ways. First: a field is conditioned in Jones's designs by geometry so that the border appears as the logical termination of the field. Second: motifs rather than figures or emblematic symbols are used in an unrestricted and secondary role and approximate the expanse of the field in their distribution. A field depends on the interweaving of motifs and geometrical patterns to obtain its uniform, coherent and contained qualities.


Grammar, 74.

I am thankful to Prof. Stewart of the Mathematics Department, Brown University, for this information. There are two ornamental motifs with no reflection; seven with reflections; two with 60° symmetries; three with 90° symmetries, and three with 120° symmetries. I am also thankful to Dr. Stewart for pointing out to me the influence of the *Grammar of Ornament* on the Viennese mathematician Andreas Speiser, *Die Theorie der Gruppen* (Berlin, 1927). Jones's influence on Viennese ornament and culture deserves fuller attention. He was awarded the Diploma of Honour in the International Exhibition held in Vienna in 1873. Viennese wallpaper and textile design begin to show the influence of field design of the *Grammar of Ornament* as early as 1862. Finally, Jones had an extensive and persuasive influence on Alois Riegl's *Stiffragen* (Berlin, 1923), 214, 241, 281-84. Riegl's own theories are indebted to Jones's. In a scholarly sense Riegl was the last historian of ornament to forge new ground after Owen Jones in the late nineteenth century. In the twentieth century two important studies of the mathematics of ornament have been made. In their article on "Wallpaper and Atoms," M. J. Buerger and J. S. Lukesh also point out that only five diaper systems can be found for patterns. Owen Jones illustrates two complex examples that relate to the most advanced...
system of "lattice" or diaper illustrated by Buerger and Lukesh in 1937. See "Wallpaper and Atoms," *The Technology Review* (June, 1937), 338-42, 370. More recently, Thomas H. Beeby, Dean of the School of Architecture at Yale University when this book was written in 1988, explained the possible symmetry operations in the second dimension as 1) alternation 2) rotation 3) translation 4) rotation. See Thomas H. Beeby, "The Grammar of Ornament/Ornament as Grammar," *Via III, Ornament* (Philadelphia, 1977), illus. 1-9, 24, 25. I would like to thank Prof. Kent Bloomer, Yale School of Architecture, for the reference to Beeby and to the mathematics of ornament made by Buerger and Lukesh, who may have derived their mathematics from Speiser. For a more modern discussion of the relevant mathematics, see Matila Ghyka, *The Geometry of Art and Life* (New York, 1977), especially plates XIX-XXVII for a discussion of isomorph partitions or regular equipartitions of the plane: see Chapter Five "Regular Partitions on the Plane and in Space".

"I always design in colour"¹ Jones reputedly claimed; and indeed, almost two-thirds of his 37 "propositions" in the Grammar, some 20 of the propositions in all, deal with the conventionalization of color. Jones visited the Near-East in 1832 travelling throughout Italy, Sicily, Greece, Asia Minor and Egypt during the very year Delacroix journeyed to Morocco. The Orient deeply influenced the knowledge and taste in color of both artists. Jones's archaeological and architectural survey of the Alhambra in Granada from 1834-35, and again in 1837, convinces him of the efficacy not only of the use of primaries, which both the Greeks and Egyptians employed, but also of the distributive system of coloration which Moorish ornament attained through their geometric arabesque. Consequently, Jones's preoccupation with the conventionalization of form, with geometry, and with nature as a source for motifs may well be interpreted as a preoccupation with the means for the distribution of color over the whole surface. But the quality of color as applied to the ornament which he appreciates best, and used throughout his floral designs, most closely approximates the Indian. It is significant in this respect that he usually employs gouache in his designs, rather than the water-color that A. W, N. Pugin prefers, in order to obtain the more abstractive opacity of ornament which the Indians achieved with light motifs on a dark ground. The Indians mixed their colors with a water-soluble size base very similar to the gouache of the western tradition. Yet it is
not even the Indian color *per se* that Jones admired in their decorative arts, but their "balance of form and color".

Although Jones claims to "design in color," he does not favor color over form. "The laws which govern the employment of color," Jones states in direct and conscious opposition to Ruskin, "cannot be separated from those which govern form either in *Nature or in Decorative Arts.*" In his *Lectures on Architecture*, Jones attacked the point of view toward color which Ruskin asserted:

The first broad conclusion which Mr. Ruskin deduces from observance of natural color is, that color never follows form, but is arranged on a totally different system. He asks, what mysterious connexion there may be between the shape of the spots on an animal's skin and its anatomical system? The stripes of a zebra do not follow the lines of its body or limbs, still less the spots of a leopard. In the plumage of birds, each feather bears a part of the pattern which is arbitrarily carried over the body, having, indeed, certain graceful harmonies, with the form diminishing or enlarging in directions which sometimes follow, but not unfrequently oppose, the direction of its muscular lines. Whatever harmonies there may be are distinctly like those of two separate musical parts, coinciding here and there only, never discordant, but essentially different. I hold this, then, he says as the first great principle of architectural colour. **Let it be visibly independent of form.** Never give separate mouldings separate colours; never paint a column with vertical lines, but always cross it. He adds, "I know this is heresy." We believe it is; for, if it were not, it would justify all those violent instances of bad taste which we think so important to oppose.³

In the battle of color and line, Ruskin opted for an extreme colorism. He deduced from nature that color "never follows form, but is arranged on an entirely separate system." As in nature so in architecture should color be "visibly independent of form."⁴ Ruskin rightly maintained that "you will lose perfection of colour as you give perfection to line;"⁵ but this statement evidences a water-colorist's rather than an architect's sensibility. Jones's primary concern was, rather, with architectural ornament, and the history of ornament revealed that
"colour is used to assist in the development of form, and to distinguish objects or parts of objects from one another" (Proposition 14, Grammar) -- an assertion Jones could also justify with reference to nature. Jones objected to Ruskin's colorism not only because Ruskin contradicted the historical use of architectural color but also because Ruskin's suppositions supported the "bad taste" of naturalism which Jones so opposed. For his part, Ruskin did not take exception to Jones's coloration in his designs themselves, but opposed Jones's conventionalization of color with the censure that "all of Jones's rules would never teach anyone to color; the artist who submitted himself to the law of these three primaries was lost forever."  

We will return to Jones's propositions on the primaries, but Ruskin was forever opposed to conventionalization in art whether of form or of color. Although appreciative of the fineness and delicacy of Indian ornament, he rejected conventionalization altogether as corruptions of an evil heart. Moreover, because Ruskin appropriated A. W. N. Pugin's insight that art is the expression of its age, he also saw this as additionally buttressing his opposition to the conventionalism of Indian art. To him, the extreme savageness of the Indian Mutiny of 1857 also condemned conventional art which, according to Ruskin's logic, must be "directed to the exaltation of cruelty."

Jones, on the other hand, was a polemicist for conventionalization as the "propositions" of the Grammar reveal. That color assisted in the development of form and distinguished motif from motif (Proposition 14, quoted above) gave color a special power in the decoration of flat surfaces; whether for the printed or woven fabrics that went into costume, drapery, carpets, the furniture or wall coverings; or for mosaics, inlaying, boulle work, or any of the other myriads of uses which Victorians found for ornament. "There is no other means of contrast in the flat," wrote Jones's contemporary, the librarian and design theorist Ralph Wornum,
"but that of colour." For them, color was meant to assist in the development of a particular kind of form far removed from the eclectic medieval kind which Ruskin had in mind.

Jones had decided views on conventionalized ornamental motifs derived from nature, and nowhere is his disagreement with Ruskin more profound than in the creation of a conventional colored ornament. Color had a power in Jones's theory of ornament equal to, even if not superior to, form: to design in color presupposes a higher activity of the hand, eye and mind, gifts that transcend the mere description of form. It is, above all, Jones's attitude toward color in the Grammar which distinguishes it from all contemporary publications on ornament. The most important review of the Grammar in 1856 is by an aesthete and color critic, Sir J. Gardner Wilkinson, who discussed, in 1858, the contribution of color to the historical understanding of styles of ornament in his survey of colored books on ornament published in the 1840s and 1850s. Wilkinson argued that color dominated pattern in oriental design, that "color not pattern was the chief purpose." But the Grammar had a specific viewpoint with regard to form and its relationship to color which deserves review.

Fundamentally, as Wilkinson noted in a chapter from On Colour titled "The Spirit of Ornament," pure ornament was "conventionalized from nature and art" and for Jones consisted "in idealizing, and not copying, the forms of nature." Having agreed with Jones that conventionalization of form is essential to ornament, Wilkinson turns his attention to the parallel need for a similar conventionalization of color. To conventionalize from nature meant to abstract from the third to the second dimension the primary characteristics of the foliage or flora which serves as the model and inspiration for the design, and to adapt and emphasize the geometric qualities inherent in the natural three-dimensional form. Sufficient abstraction by
means of geometry is essential to convey the original image; too much abstraction, however, would
destroy the prototype. Although the Grammar also illustrates many purely abstract types
of ornament, a conventional motif based on nature was the purpose of the Grammar with respect
to the creation of a new style of ornament. Color had the responsibility to assist and
develop form. While the conventionalization of form described limitations with respect to the genesis
of the motif, color was still in an ideal relationship to ornamental form. The
conventionalized motif was capable of further abstraction through the articulation of its various
components or elements by means of color. Such conventionalization of color implies a
sensationist aesthetic. Conventional form generates conventional color. A change in form generates a
change in color and a change in color can generate apparent changes in form. The sensationism of
form, or the abstract elements of the design which create the motif, cannot be considered complete
without color. Crucial to the development of form, color is the only means by which form can
articulate its parts.

"Colour is used to assist light and shade, helping the undulations of form by the proper
distribution of the several colours" (Proposition 15). Not only flat ornament, but also
modelling is assisted by the proper use of color. Just as in nature, color helps light and shade to
distinguish one form from another so also in architecture and the decorative arts. Jones observed
that "it would be too little purpose that the flowers should be distinguished by color from the leaf if
the individual form of the flower and leaf had been extinguished in the process." Color, like ornament to architecture has a subordinate role to that of form. Color
ornaments form. In the relationship of ornament to architecture where ornament is secondary to
problems of construction for the Victorians, yet nevertheless, is the evidence of higher powers of
mind of the artist in the architect, so is color secondary to form in design. Yet it is the power of color to dominate the mind in a manner parallel to ornament in architecture. Hence, color is the soul to form. Without color, line would predominate in ornament which was flat, just as light and shade would dominate modeled ornament in the round. Proposition 15 also emphasizes the role of distributive color in a composition. The equal distribution of the surface to be decorated by means of the tangentially radiating parent stem, allowed Jones to decorate a field of ornament by means of motifs. This system of conventionalization is quite different from the figure ground relationship of heraldic ornament favored by the Gothic Revival, and brilliantly exemplified in Pugin’s ornament. By means of this system, Jones was able to ornament the motifs using smaller amounts of color, in a repetitive manner, over a literally larger surface, there being an optimum aesthetic size for the figure in any figure ground relationship. The distributive system of ornament favored by the Moors and the Indians emphasized the total effect of the whole field in a way at variance with the predominance of the figure to the ground in heraldic design, even when the ground, as in Pugin’s work, played a decisive role in the ornament. Distributive color presented a "neutralized bloom" from a distance, rather than an iconic sign as in heraldry. When distributive design is viewed up close the patterning and color of the motifs predominate in effect. With the optical sensations of colored motifs vying for attention, the distributive system of coloration was particularly rich in its patterning when viewed as a fragment of the whole, an effect denied to figure ground design in which the basic gestalt must dominate. Geometry also played an important role both in the distribution of form and that of color. The arabesque of the parent stem was often organized according to geometrical means so that the individual motifs took their cue from the geometric grid which organizes the arabesque. With color organized according to geometry the visual dynamics of the design were complete. Each underlay of
pattern in the final design competes for visual attention. The undulation of form and the geometry of
design’s organization result in a rich bloom of sensations when color is added to the total effect. These
three layers of the design create the harmony in decoration necessary for beauty.

As Ruskin had already observed, Jones favored the use of the primaries: red, yellow and blue.
Ruskin thought Jones “the scientific man” for his theories; but the roots of the
controversy go deep into the history and theory of color. Leonardo da Vinci had stated the
principal colors as red, blue, yellow and green which in painting (and the decorative arts), when added
to black and white gave the basic palette.

Why green was included in Leonardo’s palette can only be surmised. As the medieval color of the
Queen it has a mystical significance in being the color of birth and renewal. It is also, of
course, the color sacred to Islam and the color associated with Kidra in the *alam al-
mithal* or the *mundus imaginalis*. Not until the late nineteenth century were
scientific studies in the psychology and physiology of color to confirm Leonardo’s correctness. In
the meantime, the seven colors of Newton’s spectrum, yellow, orange, red, violet, purple, blue and
green held the potential for a more inclusive palette. Only when the French painter, J. C.
Leblon, published his *Coloritto* in 1756, dedicated to Robert Walpole, were the three primary
colors isolated as red, yellow and blue, and these three colors formally established as the primaries for
color pigments. In the nineteenth century theories of the three primary colors were put forward
by the painter Charles Hayter in his *New Practical Treatise on the Three Primative Colors*
(London, 1826) and illustrated by Jones in 1844.13 At the same time, in 1845, a new edition of the
*Chromatics* appeared by Jones’s personal friend George Field to reinforce Hayter. Field had
developed his position on color based on chemical analyses of the interaction of colors in
1817. During the 1820s and 1830s Continental and British architects of repute such as Wilhelm Zahn, Gottfried Semper, and especially Ignatius Hittorf, together with Jones, began examining historical artifact and monuments to determine the color practices of past ages. This research gave rise to various color theories and the practice of a colored architecture in Victorian Britain from the late 1840s into the 1870s. Jones believed in the historical evidence of the employment of the primary colors in decoration; and was in closest touch with the color theorists who advocated a system of color based on the three primaries.

During the finest periods of ornament, Owen Jones and his continental contemporaries believed that the primaries were used exclusively. This was true of Egypt and Greece as well as in the decoration of the Moors, whose primary colors were repainted in secondary and tertiary colors by the Catholic kings. Jones believed that the use of the primaries should be disciplined however: "These objects are best attained by the use of the primary colours on small surfaces and in small quantities, balanced and supported by the secondary and tertiary colours on the larger masses" (Proposition 16). It is the function of the motif, therefore, to carry the primary colors in field design, while the field itself, the underlying geometric armature, could be a secondary or tertiary color. A design by Jones which demonstrates the use of the primaries for the small motifs and the use of secondary colors for the field is an extraordinarily subtle ceiling design possibly for the Summer Palace at Gezira, Cairo, Egypt (Fig. 44 above) where dark red motifs ornament a complementary light green ground. The inversion of values of ornament and ground, really of motif and field, by subduing the potentially darker color green and darkening the value of the lighter red moves simultaneously away from western tradition in ornament which typically utilizes a light ground with a dark motif, and from the Indian
which uses a dark ground and a light motif. The restatement of the traditional roles of ground and ornament enables Jones to carry through in the design the maxim of his "Proposition 34:" In "self-tints," tones, or shades of the same color, a light tint on a dark ground may be used without outline; but a dark ornament on a light ground requires to be outlined with a still darker tint." Consequently, he places blue lozenges between the red petals (?) which reach into the center of the motif to form a blue ring around a yellow center punctuated by two blue dots. The motif contains all three primaries (without which "no composition can be perfect") in proportions that neutralize the colors. George Field discovered that when the primaries were mixed in certain proportions: three units of yellow, five of red, and eight of blue; the colors fused harmoniously to form a white light. It was also Field who introduced the notion of chromatic equivalence or the neutralization of colors. Jones summarizes Field's conclusion with respect to chromatic equivalence succinctly in "Proposition 18:"

The primaries of equal intensities will harmonize or neutralize each other, in the proportions of 3 yellow, 5 red and 8 blue -- integrally as 16. The secondaries in the proportions of 8 orange, 13 purple, 11 green - integrally as 32. The tertiaries, citrine (compound of orange and green), 19; russet (orange and purple), 21; green and purple, 24; -- integrally as 64.

It follows that, --
Each secondary being a compound of two primaries is neutralized by the remaining primary in the same proportions; thus, 8 of orange by 8 of blue, 11 of green by 5 of red, 13 of purple by 3 of yellow. Each tertiary being a binary compound of two secondaries, is neutralized by the remaining secondary: as, 24 of olive by 8 of orange, 21 of russet by 11 of green, 19 of citrine by 13 of purple.

Field's theory of neutralization really systematizes, some eleven years before Chevreul's celebrated lecture on the "Simultaneous Contrast of Colour," a method for working with complementaries.

The first description of neutralization in color occurs in Moses Harris's The Natural System of Colors (London, 1766) where he accounts for the neutralizing of light orange linen with light blue
bleach. Moses is also important for his observation of the after images researched later by Goethe in his *Farbenlehre*, for the description of colored shadows which had fascinated Leonardo da Vinci, and for correctly distinguishing between the prismatic colors of light and the compound colors of nature. In the early nineteenth century, the painter Charles Hayter also observed that the juxtaposition of complementaries led to neutralization: "Every colour that is reflected on by its directly opposite colour, will be neutralized thereby; such as, green against red, blue against orange, or purple against yellow, in an equivalent degree with the power of light." What George Field did was to prove that neutralization also occurs in a chemical analysis of color and that those neutralizations determined the quantity of color or the surface area involved which was neutralized by another color, its complement. Each secondary "being a compound of two primaries is neutralized by the remaining primary in the same proportions" of 16 for primary and secondary complements and 32 for secondary and tertiary complements. The concern with secondary and tertiary complementary contrasts indicates the advanced, but little credited, state of British color theory with respect to the French throughout the 1830s, an advance sustained by the British invention of the new metallic colors during the 1840s and 1850s. This is not to suggest that Field's analysis is more complex than Chevreul's; it certainly is not. However, Field's theory of complementaries of 1817, popularized by D. R. Hay's *The Law of Harmonious Colouring* (Edinburgh, 1826), made available to English artists and designers a knowledge of complementary contrasts and a system for their application long before the appearance of Chevreul's book in 1839. In this regard, Chevreul's theory, while more technical, only elaborates upon Field's system which was still a sound principle for Dr. Christopher Dresser's color analysis in his *Principles of Decorative Design* as late as 1873.
To return to the ceiling design (Fig. 45 detail), at the fixed distance of the floor, a pink results from the red, blue and yellow neutralization of the center of the ornament, because the green ground suffuses unhindered its optical complementary, light red, over the entire motif. A dark red outline emerges around the motif to strengthen the pinkness of the center. The darkening of the outline results from the interplay at the motif’s edge of red, blue and green whereby the blue lozenges submerge into the green field while giving simultaneously a purple mix to the red berries (?) already reinforced by their complementary juxtaposition with the light green. The red motifs are then brought into direct optical contact with the darker green ivy leaves not only by means of the red tendrils which emanate from the tips of each green leaf to animate the surface further, but also by the underlying structure of geometry which creates hexagonal patterns out of the leaves around specified red motifs. Although at first glance the only structural organization of the composition appears to be the cluster of red motifs at the center of the design, in fact, the design is both highly and subtly structured. The cluster really generates a hexagonal pattern that explodes outwards into diagonal diaper grids. The hexagonal pattern of the red motifs, maintained almost subliminally by the hexagonal disposition of ivy leaves around the pattern’s critical structural points, blooms outward from the center as the motifs bend around the linear impositions of the hexagonal structure of the design to create optical contrasts of straight, inclined and curved lines, the form giving counterparts to the three primary colors.

Even more organized geometrical patterns obtain in the lower center yellow panel (Fig. 46 detail) which initially appears so saturated with flower motifs, tiny leaves and vines as to give the impression of utter chaos. But the impression of disorganization results from the multitude of fugitive patterns which appear and disappear as quickly as they are noticed. Once the
essential diaper grids have been apprehended, the composition settles into a more or less regular interplay of lozenge distributed white flowers, blue flowers in squares with red flowers on the diagonals, and a blue flower at the center of a white floral square. Only the red flower fails to yield a primary pattern. The color relationships between the blue flowers and the red, approximates the Grammar's ratio of eight units to five of the red. The yellow panel, more optical than the light green one, depends more upon the bombardment of organized color sensations than the subtle color effects of primaries and complementaries which characterize the central, larger green design.

If the light green panel contains the most covert geometry operative within a complex system of motifs, and the yellow panel evinces greater optical force by the integration of simple primary color motifs within complex diaper patterns, the orange panels (Fig.47 detail) to either side of the green demonstrate Jones's mastery of a purely sensational motif. A. G. Baumgarten's observation that "a sensuous discourse is perfect in proportion as its component parts arouse many sensuous ideas" applies aptly to Jones's ceiling design. It is the flux of form and color in changing relationships which account for the sensation in the design. Sensationist motifs and design emphasize the abstract individual components of the motif, and create multiple images of frequently ambiguous and fleeting shapes. Jones pioneered this kind of design by imitating the physiological function of the eye in its abstraction of information from the design. Jones himself recognized the "blended" and "blooming" quality of "neutralization" in field design in his Proposition 22 of the Grammar, the blending of colors and geometric shapes and the neutralization of these fugitive shapes in the overall design. The emphasis on a fugitive, sensuous reality in the geometry of the
design is complemented by Jones's intention to generate sensationist color. In the ceiling design, the light yellow motif requiring no border between it and the orange ground, contains at its center a light blue colored ornament which does require a border around the enclosing yellow ring (See Proposition 34 above). To emphasize the tendency of the yellow ring to suffuse a purple corona around the edges, Jones places small red dots along the circumference of the blue circle. Again he lightens up the blue element by painting an even smaller yellow circle with a red dot at the center to fuse into the semblance of a light blue core reverberating against a darker blue halo. The same optical effect, repeated in the transition light yellow outer ring to the orange ground, gives to the motif composed of the primaries, visual vitality almost hypnotic in its consistency. It is this kind of sensationist aesthetic delight (or play) in colors and in colors organized according to Proposition 16 (to repeat: of "primary colours on small surfaces and in small quantities, balanced and supported by the secondary and tertiary colors on the larger masses") which promotes an aesthetic feeling within each panel of the ceiling design. In this ceiling design, Jones created individual color effects while orchestrating the sensationist color over the whole surface by means of geometry.

"Primary colours should be used on the upper portions of objects, the secondary and tertiary on the lower," writes Jones in the Grammar (Proposition 17). "Thus in Nature we have the primary blue, in the sky; the "secondary, green, in the trees and fields," he continues in Lecture II, "- ending with the tertiaries on the earth...

This law will be found of great use in the decoration of our dwellings". In one of Jones's most successful and beautiful designs for an unidentified interior these conditions obtain (Fig. 48). A dark blue coving richly ornamented in gold gives way to an elaborately decorated cornice
frieze in gold. More sparing borders in blue frame the wall panels in a splendid magenta purple.

A medium width strip of crimson red frames by black and gold lines ornaments the mat black dado. The primaries (for gold and yellow are synonymous here) are used sparingly. The red is confined to the dado because "Red, the most positive of all colours, looks best in shadow." The large panels of magenta purple enframed by aqua green fulfill "Proposition 17" by their correct placement in the center of the composition. The optical quality of this sumptuous, sensual design results from the delayed complementary contrast of the gold frieze with the magenta purple panel and the aqua green border with the red strip. The tension of these complementaries stretches across the entire design, incorporating cornice, wall and dado in an optically highly charged color field design.

The shift in emphasis away from the primary colors and away from the complementary effect of primary colors can only by explained by Jones having read Goethe's *Theory of Colours* translated by Charles Eastlake in 1840, which Jones had in his library at his death in 1874. First of all, the complementary opposition of the secondaries green and purple promote after-images which strengthen, without neutralizing, the two secondaries involved: the red after-image of the green border suffuses a harmonious red over the purple field adjacent to it. Likewise the yellow after-image of the purple field qualifies and strengthens the yellow of the green. Secondly, the black dado is especially Goethean, as it was Goethe, who argued against the exclusion of black from the basic colours by Newton. Most of Goethe's color experiments involve the use of black which makes such a handsome backdrop for the red ornamental line decorating the dado.
It is worth noting Jones's preoccupation with borders in this design. The black border enframed by the narrow blue stripes has gold ornaments which need no further clarification of form -- "Ornaments in any colour, or in gold, may be used as white or black grounds, without outline or edging," (Proposition 33). Borders are Jones's principle means of ensuring that colors do not abut one another "Colours should never be allowed to impinge upon each other," (Proposition 28). Particularly successful and highly architectural are the twin gold borders around the magenta purple panel and those which surround the crimson red border in the dado. The unifying use of gold again relates the dado to the wall and the cornice. Most of all, the visual nexus of the design centers in the optical shift from wall panel to dado to cornice to the wall panel again. The magenta purple stabilizes the inter-weaving of gold and black which reach from the floor to the ceiling. All the three primary colors are to be found in the aqua green and magenta purple, a fact which gives the "perfection" of the purple wall panel some credence since, to repeat, "no composition can ever be perfect in which any one of the three primaries is wanting, either in its natural state or in combination" (Proposition 23). The reason for this is also to be found in a corollary proposition:

Each colour has a variety of hues, obtained by admixture with other colours, in addition to white, grey, or black: thus we have of yellow, -orange yellow on one side, and lemon-yellow on the other; so

of red, -scarlet red and crimson red; and of each every variety of tone and shade. When a primary tinged with another primary is contrasted with a secondary, the secondary must have a hue of the third primary" (my emphasis, Proposition 20).

The subdued yellow of the aqua green balances the red-blue of the magenta purple, just as the magenta purple wall panel balances the overall design of black and gold. Beauty obtains by means of this myriad of sensationist color influences. The more difficult it is to perceive these
relationships, the more perfect the repose, according to Jones. "You may have large masses of pale blue," he wrote in his Lectures, "because the white in the blue helps to give repose to the eye, so you may have large masses of purple-red, as shade here gives the same repose." This classic design is a harmony of shades, or colors tinted with black. The interweaving of effects with its delayed complements again recalls Goethe. Most of all, the design proves how sensationist large, abstract passages of color can be and how successful Jones's propositions are despite Ruskin's censure of Jones's use of the primaries.

One final proposition on the primaries must be accounted for in Jones's Grammar of Ornament. This proposition devolves from Jones's coloration of the Crystal Palace (Fig. 49) in 1851. The wording for the proposition may be found in Jones's lecture "On the Decoration propose for the Exhibition Building in Hyde Park." Here from the Grammar:

"In using the primary colours in moulded surfaces, we should place blue, which retires, on the concave surfaces; yellow, which advances, on the convex; and red, the intermediate colour, on the undersides; separating the colours by white on the vertical planes.

When the proportions required by Proposition 18 (8 blue, 5 red, and 3 yellows) cannot be obtained, we may procure the balance by a change in the colours themselves; thus, if the surfaces to be coloured should give too much yellow, we should make the red more crimson and the blue more purple,
- i.e., we should take the yellow out of them; so if the surfaces should give too much blue, we should make the yellow more orange and the red more scarlet. (Proposition 21).

Jones's intention for the Crystal Palace was to increase the "grandeur" of the building by coloring the cast iron piers, designed by Sir Charles Barry, according to Proposition 21. "This grandeur," Jones lectured, "may be still further enhanced by a system of colouring, which, by marking distinctly every line of the building, will increase the height, the length, and the bulk." Because the roof was to be covered with canvas thereby
diminishing the light and shade, either a light or a dark color for the cast-iron piers and the membranes of the building would have been lost in indistinctness. Since it is the duty of color to assist light and shade (Proposition 15), the primary colors were best suited not only to bring into high relief the architectural features of the building but also its sublime qualities. A critic for the *Illustrated London News* described the parallax effect of the aerial perspective which Jones's coloring lent to the Crystal Palace interior thus: "To appreciate the genius of Owen Jones, the visitor must take his stand at the extremity of the building -- looking up the nave, with its endless row of pillars, the scene vanished from extreme brightness to the hazy indistinctness which Turner alone can paint." The hazy indistinctness was the result of Proposition 18 whereby 8 units of blue, painted on the appropriately retiring concave form, mixed with 5 units of red residing in the shade of the "undersides" of the girders, all melding with 3 units of yellow which advances in its brightness and therefore was properly placed on the convex forms. While William Hogarth had isolated the three "prime tints" as early as 1753, it was Field's genius to realize that these proportions neutralized the primaries into white light again. It was Jones's genius to realize that the coloring would effect a neutralization of the structure at a distance as it would increase the distinctness of the parts up close. The white which separated the primaries one from the other on the piers absorbs the complementary after-images of the blue and the yellow which would have, had the white not been employed to separate the two primaries, suffused the blue with purple (the complement of yellow) and the yellow with orange (the complement of blue). The white border between the two primaries painted on the piers yields a russet after-image (the mixture of orange and purple) while maintaining the full brilliance of the individual primaries.
This employment of white to separate two colors derives from Chevreul's *The Principles of Harmony and Contrast of Colours* (Paris, 1839): Chevreul's principles really apply to complements proper whereas Jones's, proposition and the coloring of the Crystal Palace deals with the primaries only. Nevertheless, Jones knew Chevreul's principles well and made use of them in propositions to which we will return. The use of white to separate the two primaries of the piers at the Crystal Palace facilitated the "neutralized bloom" of the structure when viewed from a distance. It is this neutrality of colors which goes to the heart of Field's chromatic equivalents of Proposition 18 and which gives rise to the second part of Proposition 21. "We cannot in decorating buildings," Jones lectured with reference to Proposition 21, "always command the exact proportions of coloured surface which we require, but the balance of colours (8 blue, 5 red and 3 yellow) can always be obtained by a change in the colours themselves... A practiced eye will as readily do this as a musician can tune a musical instrument."

The emphasis on practical and empirical experimentation goes beyond science here. The emphasis remains the same -- the neutralization of the colors in accordance with Field's chromatic equivalents. In this sense, Jones's advice is common sense. If the surface presents too much red, for example, the other two primaries should reinforce each other by taking on each others' hue. Thus the yellow would be more citrine and the blue more aqua (see Proposition 21 quoted above). The soundness of Proposition 21 is demonstrated in success of the Crystal Palace's coloration. Like all of Jones's propositions in the *Grammar* it has its basis in empirical fact rooted in experimentation and observation of the best practices in the history of ornament and decoration.
Likewise, Chevreul's (and Goethe's) principles were based upon empirical evidence. At least three propositions in the *Grammar* are based on Chevreul's observations. These are:

When two tones of the same colour are juxtaposed, the light colour will appear lighter and the dark colour darker (Proposition 24);

and:

When two different colours are juxtaposed, they receive a double modification; first, as to their tone (the light colour appearing lighter, and the dark colour appearing darker); secondly, as to their hue, each will become tinged with the complementary colour of the other (Proposition 25);

and:

Colours on a white ground appear darker; on black grounds, lighter (Proposition 26).

These propositions restate Chevreul's principles of the complementary contrast of value where, for example, the juxtaposition of red and green will make the red appear redder and the green, greener. The complementary after-image of both colors reinforces the saturation and intensity of each hue. The after-image of green being red, when placed beside a red, suffuses its after-glow of red on the red, thereby increasing the saturation and intensity of that color. This effect is most noticeable where the colors abut. In another elegant interior design Jones uses complementary colors of different saturation to great advantage (Fig. 50).
Here a contrast of golden orange is complemented by larger masses of light blue because "each colour has a variety of tones when mixed with white, or of shades when mixed with grey or black. When a full colour is contrasted with another of a lower tone, the volume of the latter must be proportionally increased" (Proposition 19). The design in light blue descends correctly from a fully saturated blue roving decorated with conventionalized golden yellow flowers to a cornice frieze of value-contrasted lighter yellow honeysuckles on an orange ground and spreads out into the larger masses of light blue, light yellow and rose to the golden orange secondaries below. Here the color contrasted door-panel mouldings in alternate stripes of light blue, rose and light yellow creates an aura around the darker orange panels as it eases the value contrast between the light yellow frame and the golden orange field. The delicate halo enables Jones to elaborate the orange panel and to emphasize its quality as a field by a single incised dark orange line decorated in the corners by small honeysuckle motifs. The border transitions are crucial to Jones's use of multi-colored fields: "The colour should never extend to the edges, as this gives the appearance of meanness and want of finish: a small border is a great addition, and on plain colours a small inner border is still further improvement, as it prevents the eye from running out at the sides." The borders also provide the essential geometry needed to discipline the push-pull contrast of the color complements into the wall surface. The pronounced tendencies of the light blue panels to dematerialize the wall are countered by the surface restoring ornamental borders. The rose pink ground surrounding the light blue fields acts as the intermediary between the design's primary complementary contrast of light blue and dark orange. The rose ground gives a second, if lightly saturated primary to prevent or absorb the greenish mix of the larger masses
of yellows and blues. The ghosting of minor complementary contrasts at the edges of the rose ground maintains an optical vitality for that color. A purple diffused from the yellow border separating the orange dado panel from the rose, and the suffusion of a green complement onto the rose from the red ornamental border around the light blue field create a major corona of optically charged secondaries. The rose ground also mediates in terms of color depth, between the push-pull tendencies of the orange and blue fields. The larger panels are therefore able to function freely as independent decorative fields existing on their own color planes because the sense of wall surface is always restored, when the Victorian need to do so was pressed, by the agency of the rose ground. If beauty obtains from the visually subdued, yet conflicting, tendencies of the complementary contrasting panels by the harmonizing qualities of the rose, it certainly resulted from the large panels of light blue because "white in the blue helps to give repose to the eye."29

Jones's facile handling of both the complementary contrast of color and that of value (note that the light blue panels seem lighter in contrast to the darker golden orange dado and wood-work) bespeak a genius for color combinations which goes beyond that which Chevreul had in mind for the Gobelins Tapestry Works. Jones's ghosting of after-images of color is far closer to the experiments of Goethe. In a particularly Goethean proposition Jones states that: "Black grounds suffer when opposed to colours which give a luminous complementary" (Proposition 27). Because light colors have dark complementaries, Jones explains in"Lecture II", the dark after-image blue of its complement orange would increase the intensity of the black. "But blue on a black ground would add orange to the black, and destroy its brilliancy."30 Colors are in fact relative and "can exist
only in the mind." As we have seen, their combinations can be highly psychological which again underscores the indirect influence of Goethe on Jones's proposition on color.

The *Grammar* contains four final propositions on color and ornament. Jones does not comment at any length on these propositions in "Lecture II" given at Marlborough House in 1852. Nevertheless, these propositions are worth analyzing because they reintroduce the issue of form and color. "When ornaments in a colour are on a ground of a contrasting colour, the ornament should be separated from the ground by an edging of lighter colour; as a red flower on a green ground should have an edging of lighter red" (Proposition 29). The reason for this, Jones continues in "Lecture II", is that "to confine the eye...within the ornament, it is necessary to define the form; and this is well effected by the lighter tint." This proposition presupposes the contrast of ornament and ground in colors of relatively equal intensity. When using tints of the red: green complementary contrast (as in Figure 44), Jones darkened the outline of the red flower rather than lightening it. In any case the objective remained the same: to define the form of the ornament with respect to the ground. Thus, "When ornaments in a colour are on a gold ground, the ornaments should be separated from the ground by an edging of a darker colour" (Proposition 30). Because of the power of the gold ground and its ability to dominate the colored ornament by 'invading or overflowing' onto the colored ornament, the dark edging arrests this tendency. The illustration of a diaper pattern from the Alhambra in the *Grammar* (Fig. 51) comes as close as any to the specifics of this proposition and that of "Proposition 31" where "gold ornaments on any colored ground should be outlined in black." In the ornament from the Alhambra it is difficult to say whether the gold operates as ground or as ornament.
Nevertheless, the gold is at all times disciplined by edgings of black, blue, red and white. These edges, like the use of borders in Jones's interior designs, assist in defining the form. The effects of complementary contrasts when not those of Chevreul, namely: blue and orange; red and green; yellow and purple; can also serve to undermine the form of the ornament. Therefore
"ornaments of any colour may be separated from grounds of any other colour by edging of white, gold or black" (Proposition 32). "White, black and gold are neutrals," Jones writes in "Lecture II," "and therefore by their interposition prevent the simultaneous contrasts from being sensibly felt, and preserve the integrity of the colours." In a marvelous Indian design for painted lacquer work (Fig. 52) the ornaments on a black ground are all edged in gold. Each ornament has its place being neither overwhelmed by its neighbor nor by the black ground itself.
This is an elegant solution which preserves the integrity of each colored ornament and helps to unify the whole design with that of the simple border. Jones's conventionalization of color, therefore, is at all times sensible to the requirements of form. Sensationist color is never allowed free reign, but is at all times disciplined by the requirements of form-producing color. Jones's conventionalization of color gave to the color of his designs a sensationist aesthetic. By coloring form according to principles or propositions, he ensured the sensationist effect throughout the design process. Color and form were inseparable.

Three radical elements make up the final impression of sensationist design. The geometry as field, whether of diapers or of borders maintains the features and tautness of the surface. The motif in league with geometry provides the basic vocabulary of sensation to the design. Color emphasizes the neutralization and after-images of complementary contrasts. Each of these three elements competes for attention, and blends in sensuous discourse into the decorative field. Above all, it is the conventionalization of color which brings the three elements into greater harmony, and color which conveys the beauty to the viewer's eye.

The Grammar of Ornament possesses the most scientific and artistic theory of color by an architect in the nineteenth century: it is more than a theory of color; it is a theory of ornamental art and the most comprehensive theory of color by an artist of the nineteenth century. Surely Prosper Merimee, the French friend of Viollet-le-Duc and arbiter of architectural fashion in France, was referring to Jones in particular when he told Henry H. Cole of the English "instinct" for color. The color is inseparable from the ornament which it composes. In his synthesis of theories of color of the early nineteenth century, Jones created opportunities for a new approach to color in design. The sensationist or "neutralized" quality of Jones's designs
depends upon the articulation of the motif in its geometric field by means of color. While supporting the motif with its field, color complements the design by introducing a further layer of complex visual effects. If the primary intention of color was the integration of the motif with the field, the ultimate aim of Jones's colored field was an aesthetic he called "repose." Color could invoke repose directly, as we have seen, or color could stimulate repose through the complexities of its office.

7 Ruskin, The Two Paths, Being Lectures on Art, and its Application to Decoration and Manufacture, Delivered in 1858-59 (New York, 1872), 17.
11 Wilkinson, On Colour, 16, 64.
12 Owen Jones, "Lecture II," Lectures, 52.
14 David Van Zanten, Architectural Polychromy of the 1830s (New York, 1977) features the first chapter published on Owen Jones.
15 "No composition can ever be perfect in which any one of the three primary colours is wanting, either in its natural state or in combination," Proposition 23, The Grammar of Ornament (London, 1856).
16 George Field, Chromatics (London, 1855), §§ 19-22, 9-11; and "Experiment XXX", 232-236.
17 A Lecture to the Institute of France, April 7, 1828; Acknowledged in his preface to The Principles of Harmony and Contrast of Colour (Paris, 1839), ii.
24 Ibid., 6.
30 Ibid.; see note 17 above.
32 Ibid., 65.
33 Ibid., 66.
Chapter 5: Decoration and Jones's Conventionalized Interior Designs

Notwithstanding the success of his interior for the Crystal Palace in 1851 and the splendid Grammar of Ornament which won him foremost place among theorists, critics and practitioners of ornament, Owen Jones's interiors are possibly his strongest artistic achievement. His control of beautiful color in his new favorite medium of gouache or tempera was given full expression within the limits posed by the eminently Victorian need for ornament in the design. Color could not be everywhere in the design. But the Victorian theorists such as A. W. N. Pugin on the one hand and the Utilitarian designers on the other needed ornament in their program. The Grammar, and more faithfully Auguste Racinet's L'Ornament Polychrome show the continuity of ornament in styles approaching the modern. Both Pugin and Jones among the Utilitarians believed it necessary to embellish constructional conditions of the building. That a wall-veil of glass and colored iron had achieved a colossal statement in the Victorian age on the order of co-present sublime and beauty, brought to glass an aura of technological triumph and the glossing of a modern style of architecture. Jones was aware of the modernism of iron-and-glass construction in 1837, and advocated its employment in relation to ornament such that ornament would lead the way in terms of generating a modern style. This much was the purported aim of chapter XX in the Grammar's final essay in "The Leaves and Flowers of Nature" where he points out the need for a new termination for the support system. Therefore the radical elimination of all ornament as theorized by Adolf Loos would not have been desirable to those committed as a culture to its presence.
The issue of the elimination of ornament from architecture was slowly broached by the Victorians with William Morris leading the way in his *News from Nowhere* of 1891, and Sullivan soon thereafter. Ornament was considered by Jones and others of his day, like Ruskin, as the very art of architecture. But Jones nevertheless severely conventionalized his ornament, simplifying and limiting its occurrence in the design.

Color was Jones's true subject. No feature of the design dominates as much in his designs as color's adroit employment with a sympathetic ornamental program. Color is in harmony with ornament in his interiors as light was to harmonize with shadow in Reynolds' theory of art. Ornament always has the sparkle of light in his interiors, and color plays the role of shadow. Flickering ornament and a broad expanse of color are the key ingredients to his powerful designs as well as a penchant for tripartite divisions of the area to be designed- Jones is both sensitive to color harmony and to broad decisions of design as the tripartite divisions of dado, wall and cornice evince. Without the tripartite division of the wall, the color would not "bloom" within its enframed containment. And the color does bloom, because it is contained within an elaborately decorated context like a jewel in a ring. Color is as pure as the rationale of the decoration. The agenda is rich and streamlined of excessive ornament. Since the Crystal Palace this had become a convention. Then the utilitarian critique of ornament resulted in a more abstract and simplified ornament, limited by the need to embellish structural elements of the object. In his interiors he was able to explore the reality of pure color, because he had rigorously thought out the elementary design decisions by considering the end result of color in his basic moves at the start of his design.
Modern, luxurious and beautiful, the interiors are also radical statements of an age given to a rise in luxury among the upper-middle class. What is most striking is the stark, abstract quality of the ensemble. As a whole, the designs work, because such careful attention has been given to each and every part of the design. If Jones’s reputation for genius in ornament rests upon his encyclopedic Grammar of Ornament, his genius for color in his interior designs overshadows all his earlier achievements save the Grammar. Indeed, the Grammar is essential to understanding the ornamental campaign of these interiors. For the Grammar proposes a formalist and organically conventional theory of ornament from which the designs depart in exploring new principles, but also adhere to in spirit and intention. What is modern about these interiors is their ability to reveal principles of design which were applicable to architectural practice in Jones's time. These conventional principles are of relevance precisely because their authenticity (as modern statements) derive from the working designs. Essential to these principles are the twenty propositions on color in the Grammar as well as the eight principles governing the rules of form in ornament. The strategy of this chapter will be to analyze the interior designs in the light of the propositions of the Grammar which argue for the modernity of the interiors as well as for the formal tactics employed by Jones in the designs. The backdrop of the Grammar is important not only to explain the ornament, but also to prove the conventional quality of the interiors which underscore the claim of modernity. The Grammar is the indispensible touchstone to an assessment of the interiors, because they are ornamented and because color functions as an additional agenda of decoration in the scheme of the design.
A radically engineered skylight is featured in a powerful series of designs for a
gallery with a collection of landscape paintings (Fig 53) for Eynsham Hall, 1872.

Here the structural system of St. Cloud's dome of 1862 (Fig. 25) has been
miniaturized. This projected Crystal Palace for France's first International
Exposition also involved Joseph Paxton and Baron Rothschild, but was designed by
Jones with the great emblematic Moghul roof at the center of the nave. St. Cloud was
to be taller than a forty-five storey office building at the height of the crossing.
The play between exterior and interior, the bringing of the outside inside, is
domesticized in the use of iron-and-glass for the Victorian interior. The fact that
official recognition was given to Joseph Paxton for his iron-and-glass megastructure in
the selection of his design to house the first International Exposition of
Industrial and Decorative Arts of all nations means that the modernity of the age
was sought after by the government. Even Ruskin in his "Lamp of Truth" from
the Seven Lamps of Architecture is not averse to the employment of iron and
glass in architecture. He too was a believer in the conventionalization of form from nature,
and he states in the Seven Lamps that "the time is probably near when a new system of
architectural laws will be developed, adapted entirely to metallic construction." The effort
to generate such laws is one of the triumphs of the theory of the Grammar, but Ruskin was
neither able nor willing to formulate rules for a modern style of architecture. His
principles are drawn from a penetrating formalist and ornamental investigation of architecture
which would lead to a "unanimous style of some kind." However, modernism was Jones's
intention and the red room for landscape painting reveals how far Jones has simplified his
ornamental campaign, limiting the ornament to gold anthemions on a black border for
the cornice, and to the Pythagorean rhythm of rectangles in black which are relieved by red lines for the dado. Even the fireplace (Fig. 54) has been abstracted to its basic elements of pedimented supports and lintels in two registers.

Above the fireplace, armor decorates the intimacy of the hearth and acts as three-dimensional ornaments on a colored, fractal ground of crimson. The longitudinal section of the interior (Fig. 52) reveals better the Pythagorean rhythm of rectangles decorating the dado and the basic asymmetry of the elevation. Here the two bases and the framed landscape paintings supply the sense of decor which the ornamental program of the room lacks in terms of construction. Ornament by definition can be as simple as a painting or vase of flowers for C. F. A. Voysey, but the power of the traditional Greek anthemion remains strong in its isolated but traditional employment. More modern is the garden elevation of the red room at Eynsham Hall with its sheer expanse of uncut glass for the French doors which, together with the skylight, give this end of the room the feature of a glass Moghul pavilion. No muntins separate the glass in this technological triumph of sheet-glass for an interior. The dominance of a modern quality to the interior is conveyed by the iron-and-glass skylight in conjunction with the radical shaping of the door below. More revolutionary in color is a set of designs for a modern Pompeian interior (Figs. 55, 56 and Fig. 57). The interior is modern, because of the abstract use made of the stylistic elements of the Pompeian ornament employed. The Pompeians made use of the frame on the wall to employ illusionistic wall paintings which Jones has simplified and abstracted into the human figure as an ornament. The use of the anthemion and the scroll brackets to set off a flat black border enframing a family portrait emphasizes the
illusionary importance of the frame which now accords with the painted portraits of a
forgotten classical family. The nude is daring for a-Victorian living room, but only as she
abstractly accords as an ornament with the frame and with the expanse of golden yellow
ground upon which her fictive presence stands. The human ornament was considered by
Ruskin to be the most powerful of all ornaments. For Ruskin, organic forms dominate
inorganic geometric ornament. This should give the nude and the figures in the adjacent
panel predominant attention in the ornaments of this interior. But this is patently not the
 caso although they are foremost as ornaments of attention. Competing with and
helping to neutralize the figures into the realm of fantasy are the principal
ornaments of the more abstract and universal variety; namely, the anthemion and the
Greek fret. The Greek fret contains a dominant figure ground relationship that radiates in
color like a spiral from its center. The dominant green and white lines also contain a
numerological value. The 3, 2, 1, 1, 2, 3 sequence of the fret yields a powerful
pattern and provides the rhythm for the breadth of the room in its repeated condition at
the dado rail, and again at the base of the wall. Only the triangular stars of the coving
have as much abstract power. The conventionalized Greek anthemions in green on a black
ground herald the tripartite division of the room, yielding to a greater area of the wall in the
middle zone necessary to remain the fiction of wall for Jones’s interior design. The tripartite
division of the wall is powerful, because the three zones or registers of the wall are
further sources of elaboration and iconography.

There is a hierarchy in the room of decorating the cornice with anthemions and
in placing the human ornament on the wall. The wall is, after all, restored to its unity
by the iconography as well as by its formality of ornament. The dado with its Greek
fret anchors the composition with a highly contrastive base of black, complemented by an ornamented white line and framed by gold upon which the grey-green and white Greek fret sits, echoing the fret at the dado rail. The color gravity of the composition depends mostly on the descending value of the wall panels as they float on the dado rail ornament. There is a weaving together of complementary contrasts in the Pompeian red of the two side panels and the grey-green and white fret below; in the baseboard contrast of white, gold and black; and, in the blue coving of stars and the orange effect of red and yellow wall panels below. The complexity of the complements originates in the Grammar's propositions numbers 20, 24 and 25 where he cites Chevreul's principles. George Field's rules for complements in proposition 18 he has ignored in these designs. The color complements help to complete and to integrate the hierarchy of the room with its emphasis on the wall panels. The great zone of the room is undoubtedly the red and yellow decorative fields. Their emphasis on the human realm of the room dominates, although the structural tectonics of the design takes its cue from the black which emphasizes the color gravity of the dado, while allowing the wall zones to float. What further intensifies the floating effect of the full primaries yellow and red in the wall panels is the elaborate border system which contains the colored fields and their human ornaments. The borders, so crucial to prevent the detachment of the color from the wall to become a plastic element in the room, are in three parts. Two registers of these borders are ornamented, and one left in plain color to be divided by a colored line. The red and yellow wall panels integrate by exchanging places to act as the borders for one another. Thus yellow outlines the red panels and red outlines the single large yellow panel which ornaments the fireplace. The hearth is treated with Greek severity, revealing a trabeated but abstracted pilaster order common to Pompeii. The stark and unadorned fireplace is a
miniature building in the landscape of the wall and is in bold complementary contrast to the black dado. The black frame to either side of the white fireplace reach up the sides of the walls to mark pilasters for the lintel of anthemions on a black ground, and emphasizes the tripartite division of the trabeated wall. The tripartite division of the wall represents the ceiling or sky in the uppermost zone and the lowermost or dado represents the underworld with its traditional black dado.

The elevation containing a black door (Fig. 56) yields, with its large expanse of black, a handsome complementary contrast of value to the yellow panel above and helps to turn the yellow panel luminous. This panel has the additional feature of not being decorated and appears abstractedly as a color field above the door. The green lines of the door, representing colored molding, would cast a luminous glow on the black were it not for the fact that the red of the wall helps to turn the black to green while the panel above the door turns the black to purple. Either way works, and the richness here is in having both strategies encourage the iridescence black. The green is intensified by becoming slightly darker in appearance than it is in reality. As important as is the composition of the door in black, the anthemion in green on a black ground competes for attention, accentuating the blue and red secondary ornaments which also decorate the cornice in an A B A B pattern, The anthemion and its ancillary ornament would be stenciled in three colors in the final product to produce a rich glow of terrestrial ornaments reaching to the sky. These ornaments are traditionally placed where they had been since Egyptian times, at the uppermost vertical zone where they would decorate the capitals.

The most complex of the three elevations is the window with its window seat (Fig. 57) in dark green verging towards black. Framed by black, the large Victorian window with
oversize panes of glass in a three-by-three configuration, dominates the composition by sheer complementary contrast of value. The curtains in dark green keep up the complementary values between the window and its black woodwork of small rectangular panels. Above the curtain, a green and gold valance decorates the edge of the window with a simplified pattern in Jones's personal style. That style is modern, of course. What could be more daring and scientific than the placement of a narrow black rectangular field immediately above the valance with its three gold stripes of varying width? The striping provides an unusually strong composition, emphasizing the fact that nothing can be removed from this design as all elements of the design cooperate organically in the ensemble. It is a sign of high art and of Jones's modernism that he follows the highest canons of aesthetics. The unity of effect in his use of black for this interior is not had at the expense of variety, for color and ornament combine to produce a learned and scientifically designed interior.

The risk-taking of the use of black locates this composition after Jones would have read Goethe's remarkable theory of colors, or the Farbenlehre of 1810. In this book Goethe took issue with Newton's principle that all colors derive from white light. George Field had also analysed white light from the standpoint of chemistry to find that the primary colors in correct ratios in the composition should neutralize to form a white liquid. G.H, Lewes must have inspired Jones to read Goethe who argues so passionately against the white of Newton and who explains iconographically why black should be included as a full color in decoration.

What makes the conventionalized Pompeian interior modern besides the window and window seat, the counterpart to the inglenook of the fireside, is the color science that
dominates in all the elevations, the sense that the color is a result of empirical knowledge as well as of subjective taste. The color science is evident in the designs by the interlocking color complements and by the use of black. The equating of the conventionalization of color principles with modernism argues for the work's authenticity in the sense of Lionell Trilling's book *Sincerity and Authenticity*. In that book, Trilling demonstrates that the authentic as a modern phenomenon replaces the sincere as a Renaissance moral canon for judging works of art: "The work of art is itself authentic by reason of its entire self-definition: it is understood to exist wholly by the laws of its own being." Jones's "laws" are authentic, because even when he transcends the conventionalizing propositions of the *Grammar*, as he does in this modern Pompeian interior, he argues formally for color and ornament being conventionalized from a set of principles which are deducible from the work of art. This lends an air of modernity beyond the emphasis on the materials employed, because this search for principles of a modern style can be inferred from the design. These principles are also scientific and devolve from the sciences of optics and chemistry. The modern character of the interior becomes pronounced in an authentic and beautiful way. We have already noticed Jones's iconography of the tripartite wall representing the underworld, the natural realm and the sky. Even in this design strategy, there is modernity to the dialectic of infinity and temporality being realized at the same moment. The design contains a temporal realm suggestive of the past (the underworld of the dada), the present (the wall zone) and the future (the sky or ceiling zone).

The same complexity of formal intention is evident in another interior for an unknown commission (Fig. 58). This interior is the opposite from the very private
Pompeian interiors above, and are grand in scale with ceilings appearing to be higher than a princely eighteen feet. Traditional staples of Jones's repertoire appear in these designs, but in an entirely novel way. The conventionalized Greek anthemion is still employed, here white on a blue ground, extending the color of the coving in its Alhambresque diaper pattern to the full cornice. Significantly, the same blue appears in the dada rail, leaving the yellow pilasters between two voids. The feature of the elevation, because the mantelpiece is so sketchily rendered, is the large field of light maroon around the mantelpiece fireplace ornaments have been inspired by Michelangelo's tombs for the Medici in the San Lorenzo Chapel in Florence. Only the outline remains vigorous, the mantle being entirely unfinished in color, but drawn for an elaborate High Renaissance effect. The intertwining of two- and three-dimensional ornaments here suggests again how powerful the human body is in the art of ornament. Despite this, the abstract color field with its continuous stem border holds its own and may correctly be considered the dominant feature of his interiors: we have already noticed a yellow and a black color field in the Pompeian interiors, though nowhere near the scale of these large panels.

The symmetry of the design has been integrated by color in a complex way. Color wraps around the huge doors to frame the exotic wood of the interior. The black dado is particularly unusual and handsome. Unity in variety and variety in unity is Birkhof's aesthetic formula for the beautiful, but we have seen Jones's interiors to be iconographic as well. The more modern psychological way of stating the beautiful is the presence of complexity in order and order in complexity. The abstract field looks forward one hundred years to the color field painting of the 1960s which are as abstract and conceptual as
these compositions. Color gravity is maintained by the heaviness of the maroon fields compared to the real lightness of the yellow pilaster panels which anchor the blue in the composition: a de facto complementary contrast. The maroon rests on the black of the dado. In the ceiling the brackets are also unusual, though Jones's brackets for Osler of 1858-60 are equally so. There is no historical prototype for them, and they focus in red and black on the symmetry of the window elevation, Equally facile in either symmetrical or asymmetrical composition, Jones exploits both types here. The golden section in an otherwise asymmetrical elevation marked by the yellow pilaster brings in another dimension of mathematics upheld by the diaper pattern and the use of the fret to surround the yellow pilaster.

How did Jones create his color harmonies, and how radical are his explorations of color? Most important for the subject of color are a group of five preliminary color studies in the Owen Jones Notebook which are painted strips of color of the wall, upper dado and rail. One depicts four important studies of blues in simplified fashion showing the colors only and no ornament (Fig. 59).
Two of the blues are identified by Jones as "cobalt" to the right of center and "Antwerp". Really, there are only three different species of blue here as "cobalt" is placed beside a darker value of the same color to the left. What is interesting about these studies is the attention given to the contrasting dado colors. The lavender stripe across the brown in the strip left of center is a bold thought, and uses abstract color to create decoration. These studies prove that Jones thought in terms of color. More specific in these terms is another color study from the Notebook (Fig.60) which proves Jones's delight in lavender lines, black lines, blue beads and richly colored cornices.

The color studies are detailed by color notations which add an intellectual tone to the color richness. These color ideas are written down in Jones's hand as "ceiling pale blue buff flat band with red lines buff with red center ... two lines black dada rail with two green (?) ... and two lavender (umber) lines showing black line in center" for the pale lavender wall study to the left of center. Jones's thoughts about color are simply expressed, but the idea and design is very complex. Many colors are employed in these
verbal sketches from the *Notebook* yielding a complexity of effect even at the abstracted level of a study.

One of the most beautiful interiors ever designed by Jones is to be found in the *Notebook* and has been cut into four sections, each a jewel of modern design. Featuring a light blue patterned field on the walls, the interior also boasts a clerestory and an ottoman in complementary purple (Figs.61-64).
The wall pattern is a conventionalized Moorish pattern with flowers between the interstices of the diaper pattern. A darker aqua blue with pink enlivens the light blue ground, distributing a complementary contrast across the pattern, and bringing a sensationist *leitmotiv* to the iconography of nature. The technical skill required and the knowledge needed to bring out the pattern in miniature makes a feature of color and ornament at the same time. This level of synthesis between exotic pattern as mathematics of the wall-paper and the iconography of nature for its content, finds a formal counterpart in the design in the melding of color with the complexity and exotic quality of the pattern, and the iconography of nature taken from the flower and its leaf. Iconography and color harmonize intelligently as the aqua contains the requisite green to distinguish it from the reposeful light blue of the ground. Few of Jones's larger scale patterns are so felicitous in their color harmony, yet all to be abstractive, scientific (in the mathematics of the diaper and in the optics of his color) and modern by using nature as a source for ornament in accordance with proposition 13 of the *Grammar*'s theory. The "conventional representation", in Jones's words, of the flower is not so abstract that the ornament is
no longer recognizable as a flower. Yet the flower is abstracted to assert the ideology of simplicity and utilitarian usefulness amidst an interior of great complexity.

The mantel with its clock recalls Jones's apprenticeship with Louis Vulliamy whose father was a clockmaker. It is set in the magical colors of red and black. These are the original colors of the hearth with its burning coals and its carbon black soot. The mantlepiece is trabeated in Owen Jones's most abstract manner of narrow red strips surrounded by black, with two superimposed orders of capitals. The correspondence between the red of the mantlepiece and the red pilaster set off by moldings or color strips of light blue, yellow and black, harmonizes with the principle pigment complementary contrast on the wall. The red is operative in a contrastive way to the aqua and light blue of the flat-patterned wall. The play between the red pilaster and the one in pattern to the left of the mantle is a tour-de-force of design, setting up echoes and reverberations along the wall by its Pythagorean rhythm of the A B B A pattern of pilasters across the wall. At
this juncture in the design some symmetry is established in an otherwise asymmetrical
room.

The system of decoration deployed is dependent in part on the trabeated system which
he features in his fireplaces and vaulting. These elements bracket and yield a
competing, complementing and harmonizing tripartite passage of ornament in the
structure of the cornice and clerestory (Fig. 62). Actually, there are six main registers in the
detail of the cornice and clerestory, and so many subdivisions and sub-groupings possible
in the design that these recall Moorish practices in ornament. The figurative pattern,
barely grasped and then gone to yield a new pattern for the eye, is ever a principle of
physiological psychology where a complex mathematics and simplified optics can collaborate
in meaningful visual dialogue through gestalt. Jones’s effect here is Rembrantesque,
given to chiaroscuro and color tones of the same hue. The penetrative ornament of the
middle register, where the coving has been bracketed out, contains a double
diaper pattern which acts just as a conventionalized Moorish pattern, throwing
shadow on the ground which is the most recessed part of the design. The other
elements of ornament on this upper reach of the wall are equally fascinating, none of them
loosing power to the wonderful complexities of the orientalist diaper pattern. But as a
whole, the system is based upon a Greek conception of the entablature, yet so modified and
complicated by Jones as to appear novel for the nineteenth century. Each of the
four windows in the clerestory is divided into two lights and is separated from the other
by three modern Pompeian miniature pilasters. The windows are asymmetrically placed
in the ceiling in relation to the decoration of the wall zone below. One wonders
what his media were for the room: perhaps textile for the walls; inlaid wood for the
Assyrian anthemion; fibrous plaster which he frequently employed in his ceilings for the Moorish diaper; rare woods; with finally, stenciling for the upper ornaments on a black ground? The variety of effect in these ornaments does not disorganize the interior, rather it increases the apparent richness established by the wall pattern.

The third radical element of the Notebook interior is the purple ottoman (Fig. 61) and curtains (Figs. 62 and 63) which provide an optical contrast to the blue walls. The purple helps to turn the wall pattern towards an aqua blue-green which is the complement in terms of optics to the purple. The purple ottoman and the curtains may be considered the dominant visual elements of the design. Color is given full rein to compete with and complete the ornament of the interior. The purple anchors the design and casts a yellow afterimage on the aqua blue wall pattern to reinforce the illusion of aqua on the walls. Color is also used without pattern to contrast with the two zones of ornament above and to provide a human focus to the elaborate interior. The color thus belies the notion of the Victorian interior as dark and stuffy, filled with *bric-a-brac* and *objets d'art* in shaded colors and with little light to enliven the room. Jones's means of lighting the Victorian interior through the use of the clerestory and by generous windows, reflects the trend towards more light sought after by Queen Anne architects; but the clerestory is radical, as are the large glass surfaces employed by Jones for his more conventional windows. In this setting, color glows with a life of its own, and establishes an independent decorative reality from the ornament which decorates the room.

Jones is facile with every color harmony he establishes for his interiors, inventing new contrasts and harmonies for them. Another interior from the *Notebook* (Fig. 65)
contrasts the complements green and red in an interior full of repose and luminous effects.

In the cornice Jones places the now familiar juxtaposition of red and blue hues for a leaf ornament following Proposition 17 where "primary colours should be used in the upper portion of objects, the secondary and tertiary on the lower." This proposition of the *Grammar* is rigorously practiced by Jones throughout nearly all his interior because the iconology of the blue, relating it to the sky, is such an important feature of the ceiling. Jones’s student, Dr. Christopher Dresser, thought that blue here should reflect the "atmospheric effect" of the Italian sky. The iconology of the color blue thus sustains and complements the formal requirements of his *Grammar*’s Proposition 17. The blue is also sparingly used in the sensationist daisy ornament used to decorate the upper part of the walls below the cornice. Here again red makes its appearance in an A B A B rhythm with the blue, but more simplified. Swags are hung from the red flowers in green with leaves, and a spray
is dropped from the center where the swags meet. In the microcosm of the extended border, the blue outweighs the red by a ratio of 8:5 as in Proposition 18 of the Grammar; but, the employment of red and blue has been limited to the ornaments which frame the complex fret in black and gold, surrounded by broad pure black lines, reiterating the ground of the figure.

The swags provide the main introduction as ornaments of the room which herald the color theme of the interior to be the luminescence of green. To produce this luminescence, Jones has divided the wall according to a golden section, with the smaller part located above the elaborated Greek fret in gold on a black ground which surmounts the colored molding the doors. The smaller unit complements the larger unit in terms of a smaller zone of white contrasting a larger zone of black. The secret of the white is the filigree lacing of the leaf ornament and the compression of the register of white between the gold on black Greek frets. The white is thus intensified for the microscopic color details that decorate it. The color gravity which produces the compression, tends toward the black which is featured in the four doors of the elevation. This tendency is the basis of the luminescent green of the dado. To create his ephemeral quality of luminescence, Jones has framed the deepest of three greens used in the design by two red lines above and below the floating green rectangles. The red lines are ornamented further by a black ground up to the dado rail and base. Finally, these glowing dark green rectangles are activated by the large wall panels in red with their yellow borders. Complementary contrasts of two different orders harmonize to produce the opalescent quality needed for luminescence and the dematerializing of the surface for color to bloom. This effect places Jones in sympathetic relation to the color theory of the American Ogden Rood and
artists such as Georges Seurat and Gustav Klimt. The lighter green of the door panels do
not have the same bloom, because they are fixed, rather than transformed, by the wall
panels in dark scarlet. The door panels are like radiant slivers of emerald because fixed by
the ruled yellow lines which ornament the panels as well as the dado. Only the green of
the dado, translucent and luminescent in its effect, genuinely contains the secret of being the
aura of a color rather than the color itself.

   It is possible to see radical color as well as a conventionalized ornament as
being part of the modernity of these interiors. The doubling of the effect of color and
ornament as modern elements of the design overpowers the traditional tripartite,
trabeated wall system which Jones most frequently employs as the basic design
structure of his elevations. Tradition is seen as a design fixture to be updated by
the elaboration and ornamentation of the basic tripartite division. All else is new: the
ornament, the color, the glazing and the mantelpiece similarly, the principles of design are
seen to be old, though their collective appearance and conscious scientism makes even this
fundamental aspect of the design quite modern. The specific features developed by
these principles must be modern for Jones, The ornament and color owe nothing to the past
save their being in accord with the propositions of ornament and color which were followed
by designers in the past. The fact, not the principle, is new; nevertheless, the gloss of
science in his designs is rooted in the past practices of the old masters of design. Not one
principle of design is speculative in the Grammar. Even when Jones departs from
his propositions of ornament and color, one senses he works from a scientific
intuition rather than departing from foundations in science upon which he built the theory of
the Grammar.
That he could be shocking and original with these propositions can be seen in a final interior from the *Notebook* where George Field's theory of the harmony of proportions governing the relationships of blue, red and yellow is abandoned. Rather, Jones in his design (Fig. 66) blends the primaries around the purely coloristic complementary contrast of aqua and crimson.

A pale yellow dominates the center of the design as a ground for the crimson panels by its employment in the lintels of the mantelpiece. The double lintel is supported by miniature red columns with green capitals. The second lintel is supported by four green brackets and boasts a black ground with black trim. The architectonic of the mantel encloses a green arched element with red spandrels with a foliated bracket at the center of the design. These are the schematics of the design where pure color fulfills the role of carrying the ornamental armor and metal vases on the mantle. But color does not act decoratively here in
assuming a supporting role for the armor; rather, it shares the decorative interest of the
design as it continues to assert its role as an essential agenda of the interior's design program.

Where Jones uses ornament for its own sake is again in the cornice where he
fulfills the terms of his *Grammar*'s Proposition 17 in keeping the primaries to the upper parts of the design. Again he has microscoped his friend George Field's neutralization of the primaries into the three registers of ornament necessary for proportion to be created between the zones. These feature a small blue and redborder next to the ceiling, a band of Greek frets in blue and white in the middle, and a large conventionalized Islamic pattern in the Alhambra's primaries of yellow (gold), red and blue. Field's Proposition 18 of the *Grammar* has also been worked out in microscopic detail with the crimson of the wall panels below undoubtedly chosen to foil the steel armor and its gold ornamentation of Damascene. The conventionalized Pompeian wall and the ornament of the armor are reflected in the classic eclectic synthesis of Greek and modern Moorish in cornice ornaments. By placing the Moorish to advantage in the design of the cornice, Jones has psychologically invited the inspection of this pattern which is wonderfully dualed by a lace of yellow lines. All the qualities of the highest ornament are there, but Jones has gone beyond the transformation of Islamic ornaments in his interiors, to create a new and modern ornament in his own style. The importance of this ornament in the interior is emphasized by the chevron pattern which borders and frames the modern Moorish ornament, giving the iconology of the cornice a more ethereal, sensationist and cosmic aura. The modern Moorish ornament is brilliantly discontinued where the capitals of abstract pilasters would rise from the mantle. Jones has painted
these pilasters away, incorporating them into the yellow ground. But he has retained emblematically their capitals in a dual square of blue and red.

If Jones tinkered with Field's harmony in the cornice, he overturns Proposition 18 entirely with his Pompeian red panels which dominate the wall. Partially framed in two tones of blue, the red panels need the aqua of the ottoman for a complement and as a point of repose in the design. The repose is desirable, because Jones offers the complexity of detail and the expanse of abstract color as its counterpoint. Here color is a repose, but not the "saintly and severe" repose as Ruskin would have it. Rather it is optical and physiological, dependent upon the science of color Von Bezold would later approve of in his attempt to devalue blue and assert red as the dominant color for vision and design. Coincidentally, the Maxwell wheel does verify Field's proportions, but the departure from the science of color to the art of color in this interior is a welcome move by Jones. Given the presence of a conflict in his design program, that is, the need for blue to predominate and the need for red as a foil for the metal armor, he chose the red and establishes a new harmony for repose between the aqua ottoman, the wall panel and the neo-Islamic ornament of the cornice.

Simpler in design, but nevertheless of interest because it does fulfill Field’s proposition 18 in the Grammar, is a staircase design for an unknown commission (Fig. 67). Predominantly blue, the three elevations demonstrate the adjustment of the surface area of blue -- both dark and light -to the chroma of the red carpet so that the proportions of 8:5 favoring blue over red are established with Proposition 18. The combination of Propositions 18 and 19 in the Grammar create repose in the light blue walls, and contrast in the dark blue rectangles which surround the brown panels on the
undersides of the stairs. The woodwork, painted grey, offers a neutral foil for the eye and keeps the repose of the design in the light blue of the walls.

More radical is another group of three designs for an interior (Fig. 68) which maintains the theme of reposeful light blue -- which George Eliot saw as: "where one may float between blue and blue in an open-eyed dream that the world has done with sorrow" (Daniel Deronda, Book VII, 265). The interiors are symmetrical and very much in keeping with the Propositions 18 and 19 deriving from George Field's theory. Both these sets of designs may be dated between the completion of the Grammar in 1856 and ca. 1860. In the elevation with the door, Jones has maintained his tripartite division of the wall but severely reduced the role of the cornice. Instead he has brought the iconographic light blue of the ceiling into the wall itself and outlined the color with a Greek fret. His stylized anthemions at the center of the wall panel in designs such as these, shaped the opinion of his student, Dr. Christopher Dresser, who wrote of the typological manoeuvres that a ceiling design might take. What Dresser wanted to see in a center ornament for the ceiling was a certain lightness of effect, which lightness Jones achieves by a white anthemion emblem on the pale blue ground. The room is insistently Greek with its use of a nearly Pompeian red dado, which anchors the composition by its heavier weight compared to the light blue with its ephemeral iconography. If Jones has brought the sky down to the realm of the netherworld, he has also brought the temporal flower to the sky, infusing the cosmic with terrestrial narrative. At the same time, he seeks fragile glimpses of the perfection the Greeks were most famous for achieving.

The emblemism of these three interiors is deep and expresses the cosmos and temporality at the same time. All of the pilasters in the room are yellow, save two in
light blue which throws off the symmetry of the door elevation. The streamlined configuration of black fireplace and clear mirror above reflecting the light blue light of the room continues the vertical tripartite division to complement the horizontal tripartite division of the wall seen in the door elevation. These interiors on stylistic grounds alone could be dated to about two years after the Grammar of 1856: -- the colors are more traditional and less radically employed; the design is more simplified; and the cornice weaker in its ornamentation than the interiors of his late years of practice. But importantly, they are in Dr. Dresser’s words “new in character, while yet of the spirit of the past.”

More modern and at least a decade later in execution is a design for Eynsham Hall from the Victoria and Albert Museum (Fig. 69).

While the dado is unfinished, the design boasts an elaborate cornice in the primary colors with black and white used sparingly as advocated in Proposition 32. Jones’s greatest elevations use a lot of black to lighten and brighten the colors as suggested by Proposition 26 of the Grammar. The cornice begins with ruled borders or broad lines of colors in tinted primaries before opening onto the most elaborate ornament of the interior in two shades of blue and white. Here, as so often before, Jones has borrowed from the principles of the ornament of the Alhambra to create a new ornament with the spirit of the Moors. Conventionalized ornament such as this inverted repeat border, have everything to do with generating a modern mood for the interior, the sense of richness being intensified by the polychromatic anthemion below, A handsome red and black border of painted lines frames the conventionalized anthemion pattern which breaks at the pilasters into polychromed square ornaments surrounded by a black border decorated with triangular motifs. The composition of the cornice is elaborate, with
foliage being placed above the flower, and given more prominence in the design. What is genuinely new, Jones asserts, is the theme of nature scientifically treated both in terms of generating new forms of ornament, but also in using history as a laboratory for culling the most perfect of ornamental flowers, the anthemion. The Greek element of the design is qualified by the scientifically produced foliage above it in the coving, and below in the foliated valences. Partially concealed by the valances, the purple curtains fall in complementary contrast to the ornamental pilasters in yellow which separate the windows and give the impression of a wall-veil where, in Paxton's words, the glass operates as a "tablecloth" to the table. There is only the illusion of support in the pilasters, the repose of their function being secured by the curtains.

The evidence alone of the Notebook as it culminates in this last interior confirms Jones's greatness as a designer. He gives his designs proportion (in the tripartite division of the wall), harmony (in the color complements chosen) and repose (in the fitness with which he makes his two-dimensional ornament conform to the fractal wall-veil of his interiors). What needs to be stressed is how much Jones's study of the problem resulted in an inventive solution and a novel presentation within the familiar system of ornament and color which he creates. Nowhere does he radically depart from the spirit of the Propositions given in the Grammar; yet, he does modify or break some of the twenty rules for color which he specifies in his encyclopedia. His interiors may be safely seen as the product of these principles, verifying Van Zanten's claim that Jones makes little sense without the explication of his theory. Nevertheless, the theory may also be seen to emerge from the designs, so strongly are they given over to deliberate, scientific principles of ornament and color. Either way, and despite the breaking of his own rules,
Jones succeeds in distilling a style given to theory in a manner quite distinct from the other two practicing theoreticians of the century, Gottfried Semper and Viollet-le-Duc. Jones's theory defines his modernism, while theory remains on a more abstract level for his continental rivals. Jones disagreed with Semper's theory that the decorative arts preceed and are more primal than architecture. His belief in the primacy of architecture was to influence Frank Lloyd Wright from 1886 on. Modern, conventional, literate and theoretical, Jones's designs are a revelation for the taste of the times between High Victorian Gothic and the Queen Anne Movement of the 1870s.

Most representative of this reforming, even revolutionary, mode of design are two interiors which show Jones's mastery of color science. Propositions 24 and 25 in the Grammar deal with Chevreul's laws of the complementary contrast of color and value and these Propositions are contrasted by Jones for identical interiors. Just as the Grammar proved Jones capable of deep study in order to generate the principles of design needed for ornament and color, so Jones has felicitously studied the same interior twice, and the differing results are startling.

In the first design (Fig. 50 repeat), a deep golden yellow orange complements a light blue wall. The second design (Fig. 70) features the complement between a dark and a light purple which verges on russet.

A very different design results from the two approaches. The essentially white ground of the former makes the golden yellow look orange and the black ground of the latter design makes the purple brighter and not as heavy. This illusion is created by relative contrast, and yields a relative transformation of the colors. The design in orange and light blue fulfills
the Propositions 27 and 19 in the Grammar calling for primary colors in the upper parts of the design, and for the increase in surface area of colors which are complemented in different strengths of chroma. The coving uses a dark blue ground and a gold continuous stem ornament with leaves and flowers. Pale blue enhances the dark blue of the continuous stem's ground and the design as a whole achieves repose in the juxtaposition of the blue and gold continuous stem with the orange ground and white anthemion of the ornamental band below. The entire composition of the cornice depends on this contrast and the refinement of these ornaments with the primitive hatched line which borders and terminates the cornice. Again, a tripartite approach to the design features inverse and varying intensifications of the three zones of the wall depending upon the surface area to be decorated. The larger the area, the simpler and more abstract the treatment.

Abstractly unified yet ornamentally complex is Jones's most beautiful elevation for an interior already discussed in Chapter Four (Fig. 48 below). The composition takes its cue from the two large violet-purple wall panels to either side of a vertical mirror placed over the fireplace, yielding an A B A rhythm to the wall. The theme of the tripartite division of the wall is emphasized by the tripartite division of the parts with the three bands of ornament for the cornice being echoed in the tripartite division of the dado into baseboard, dado and dado rail. The elaboration of the design into three parts, each segment of which is divided into a further three elements is a necessary move by Jones for creating proportion in the room, which, like true comparisons, depends upon a tripartite structure. The schematics of proportion also help to unify an otherwise very complex composition. Abstractly considered, the interior presents proportional
relationships between ornament, color and the nature of materials which are left unadorned -- the stone of the simplified fireplace and the mirror above it. The complexity of ornament and color finds repose in the abstract simplicity of the functional elements of the interior.

Without the simplification of color in the wall panels and in the mirror/fireplace feature of the room, the ornamental program might have been lost in the over-elaboration and the over-complication of the elevation. But Jones has allowed his cornice to dominate the agenda for ornament in the interior, and by subtle means which take into account the deepening shadows of late afternoon and evening in the upper parts of the wall, he has created an interior as splendid by night as it is by day. This is the result of the contrastive uses of gold used in the cornice, where a broad frieze of anthemion and scroll ornaments together with foliage on a gold ground contrast with the gold conventionalized Pompeian ornaments on a black ground in the ornamental register below. The shadow of evening would affect the lowest register most, where the black ground would be subsumed by the shadow to reveal a flicker and gossamer of gold ornaments floating freely in space. During the day the upper broad band of gold with its ornaments in black would read clearly even in the minimal light of the rainy climate of England. Jones has made excellent practical use of shadow in his elevation, separating the fireplace and mirror from the wall on the right hand side of the elevation, and also employing shadow in the upper part of the coving with its gold continuous stem on a dark blue ground. The black dado and the dark violet purple in the wall panel also evoke the shadows of night. The red has been confined to the shade of the base and the perfect foil of the black dado gives the broad red line its contrast and necessary context.
What controls the complexity of the design is the decorative conventionalization of the parts, especially the placement of the primaries in the cornice and the dado (Proposition 26) and the temporary abandonment of Proposition 27 of the Grammar which says that "the primary colors should be used on the upper portion of objects, the secondary and tertiary on the lower." Here Jones has introduced a deep blue to the dado rail and red above the base board, thereby squeezing the primaries between the secondaries of the wall panel and its aqua border. But what is most conventional about Jones's design is the use of borders to separate color and ornament. There are some fifteen borders in the elevation describing at least six border conditions -- i.e., between dado rail and the aqua green ground. These borders illustrate the importance of Proposition 28 in the Grammar which states that "colors should never be allowed to impinge on one another." No less than six propositions (Propositions 28-34) in the Grammar deal with the border condition, and we have already seen in Jones's "field theory" how important borders are in creating the decorative field in design. The borders help to maintain the uniqueness of the parts of the design, and as a controlling agenda for color and ornament, they help to unify the tripartite lineaments of the wall of which Jones is so fond in his elevations. Equally important is Jones's consideration of borders as essential to the color of ornament. The borders are ornaments in their own right, and function to separate colors and ornamental patterns from each other, controlling the apparent strength of the hue by preventing the greying-out of the after-image of uncontained colors.

The predominant effect of the wall panels in purple depends upon the many borders which frame the panels and its surrounding de facto complement in aqua green. Jones
has gone beyond Chevreul's three pairs of complements to anticipate Von Bezold's six pairs of complements of 1876. The richness of color also depends upon the compression of the panel between the black ground of the ornaments above it and the black dado below. In both cases gold ornaments on a deep blue ground mediate between the aqua green and the black. Nevertheless, these borders become neutralized by the overall color gravity which weighs down the composition so that it rests on the blackness of the dado. The tendency of the color wall panels to float free is mitigated by the effects of color gravity and by the border conditions which fix it securely to the wall and generate the repose which is given to the shadowy effect of purple, the darkest of the hues in its natural state.

Of supreme importance in this elevation is the notion of an iconography of underworld, natural world and the cosmos as expressed by the tripartite division of the wall. The underworld is represented by the black dado, the natural world by the color of the flowers and leaves of "nature and the cosmos by the golden bands of ornament and the dark blue coving in the cornice. Again Jones has intermingled elements of the design from an iconographic point of view so that the flowers and leaves are sanctified by being placed in the cosmic realm, next to the sky of the ceiling. The blending of iconographic elements also occurs in the dado where red, the color of life and sometimes the earth (Chinese) is taken down into the netherworld of the dado base. That this is also a formal maneuver on Jones's part has been commented upon, but the parallel with the flowers in the sky should not be lost to the viewer. Jones is willing to enrich the basic design by iconographic, and at the same time, formal ploys that establish the intermixture of iconographic relations
while presenting the mix of formal elements so necessary to the requisite 
"neutralized bloom" of the Grammar's Proposition 22.

More indicative of the quality of "bloom" that Jones adheres to following the 
publication of the Grammar are designs for the Oriental Court at the Victoria and Albert 
Museum discussed briefly in Chapter Two. These are now part of the kitchens and thus 
lost to the public. The design for seven bays presents alternating red and blue 
spandrels with very abstract pilasters and piers in solid color. Begun in 1863 and completed 
by 1865, the design (Fig. 27) shows the microscopic interweave of details which Jones 
admired in Islamic design in general and in Indian design in particular.

The theme of the design is the leaves and flowers from nature which are featured in 
green on a red ground and in gold with white flowers on a deep blue ground in the right 
hand three bays of the design. The Cartesian regularity of placement of the white 
flowers on spandrels flanking the two center bays on the left hand side of the design, 
belie the interweaving of effects achieved by the arabesques of the two red and green 
spandrels on the right, and by the two turquoise ground spandrels on the left-hand side of the 
design. In contrasting the Cartesian grid-placed flowers with the Oriental arabesque, 
Jones has placed Western design principles on an even par with the Eastern tradition of 
the arabesque, demonstrating his thesis that the Alhambra is the Oriental equivalent of the 
Parthenon, and that showing that principles of design from East and West can co-
exist in the production of the "neutralized bloom" required of all design. Actually, the 
emphasis on the distributive system of the Cartesian grid and the arabesque is 
common to both Eastern and Western design, and the principal means by which Jones 
achieves his "bloom." The Cartesian system is also employed to articulate the upper reach of
the pilasters on the right hand side of the design. These have been colored a golden yellow-orange to complement the blue spandrel on this side of the design. This basic complement is intensified for the two turquoise bays of the design by deepening the orange to a near vermillion so that the pilasters seem to detach themselves from the "wall-veil" of the design because of the power of the yellow to "advance" while the turquoise "recedes." A tentative neutrality is established by the emblematic designs which ornament these pilasters. These emblems hold the power of the color to the wall itself, rather than giving the power of the complements its fully dimensional effect, because the emblem provides a flat pattern focus to anchor the composition. The "bloom" which these disparate elements of the design produces results in a blurring of detail at a distance but a richness of microscopic ornaments when viewed up close. The neutralized effect of the bloom requires, therefore, the obliteration of the part in favor of the whole. The theme of the distributive arabesque and the Cartesian grid ornaments are thus indispensable elements of the design in achieving this effect.

In summary, the most important aspects of Jones's designs emerge in terms of their conventionalized modernity, their insistent conventional classicism and the abstract use to which Jones puts color to work in his color fields. Jones's designs are not only modern because of his use of large continuous surfaces of glass and his employment of overhead lighting or clerestory lights, but also in the simplified way which he treats his classical ornamental system, limiting the ornament to the cornice, and, as we have seen in his flat pattern designs, to the ceiling. Jones's modernism is tied to this simplified use of ornament which rejects the all-over pattern of Moorish ornament in favor of abstract areas of color balanced by ornament above and a black dado below. Color gravity assists
in the classical base, column and entablature division of the room which generates the fundamentals of the design for Jones. Frequently we have seen the abstract color field compressed between the heaviness of black, Goethe’s influence represents the tendency towards Romanticism which Jones’s work must be seen as continuing towards the modern age. His faith in Science, particularly the sciences of botany, mathematics, optics, physiology and psychology are modern on the one hand, yet rooted in the Romantic Movement which valued the Natural Sciences more deeply following the discovery of Nature by the poets before the turn of the nineteenth century. But Jones was also committed to Commerce and Industry, and his utilitarian acceptance of simplicity in ornament makes him the first modern in this effort to distill from the past the universal ornaments best suited to the interim and to use sparingly and boldly in his radical elevations. His tendency towards abstraction in color represents his modernity as securely as his simplification of the ornamental system for his interiors. Color, bold and innovative, in conventionalized by the classical tripartite division of the wall as well as by the tectonics of the post and lintel system. The compression of the color field generated by the cornice on the dado reveals that color gravity, or the tendency of colors to have weight, black having the greatest weight and density of all, contradicts the tectonics of the system. Nevertheless, this contradiction is essential to the abstraction and bloom of the color field and represents a radical departure from the Classical System upon which he otherwise depends.

A similar understanding of color theory conditions the innovative exploration of color harmony in his interiors. Jones did not feel limited by his propositions on color in the Grammar. Rather, he went on to create new color harmonies. The turquoise and crimson
complement in the Whitworth Art Gallery Notebook is almost as anticipatory of the future of color theory as the red-purple and yellow-green complement which adorns his greatest design for an interior. But Jones did not abandon his complete color theory of the Grammar even if he went beyond the implications of one of its core propositions. His sense of complementary colors in these designs would be vindicated by Von Bezold (1876), Ostwald (1916) and Munsell (1921). An important insight in Proposition 19 reveals how much Jones anticipated later color theorists when he writes that: "each color has a variety of tones when mixed with white, or of shades when mixed with grey or black." While the proper terminology has now been established to describe a hue mixed with white as a "tint," Jones was again innovative in anticipating the primary method by which colors were classified by Ostwald and Munsell for measurement. Being an artist, Jones did not need the science of either Ostwald's or Munsell's color systems; what is novel for the nineteenth-century is the degree to which he anticipates the future development of color theory in this proposition, and the effect he succeeds in obtaining with his flat, tinted colors.

Most importantly, his abstraction of color in the color fields he created allowed for the bloom of color in his interiors by allowing some degree of three-dimensionality to occur in a composition dedicated to two-dimensional flatness. Despite the fact that his use of ornamental borders conditions the flatness of the color at the edge of the decorative color field, the full power of abstract color blooms at the center of the field because of the inherent three-dimensionality of color. This fact was also recognized by Jones in Proposition 21 where he noted the push-pull opposition of yellow and blue and the stability of red. Proposition 21 also keys in on the balancing of colors by complementary contrast
such that: if the surfaces to be colored should give too much yellow, we should make the red more crimson and the blue more purple -- i.e., we should take the yellow out of them."

This proposition then considers the management of the chromatic circle of hues by seeking a balance in the composition according to logical principles which became canonical for Ostwald. The ability to change the dominant hue of a composition by principles of color and the acceptance of a key element in Ostwald's theory, namely the presence of tone in hue, i.e., the grey content in a mixed hue, points as well to the modernity and comprehensiveness of Jones's color theory. The radicalness of his decorative color theory must stand in juxtaposition to the conservatism of his ornament.

One more observation with respect to color is worth exploring; namely that Jones's simplification of ornament allowed his radical use of decorative color free rein in his designs. Jones went further than this. His colored borders become ornaments in themselves, and he thus transforms the rhetorical, iconographic content of the history of ornament to include abstract forms which do not generate the same kind of meanings as the traditional ornamental forms of the past. Color becomes decoration: the iconography of color becomes fused with the iconography of decoration, and the complexity and richness of this strategy reveals how hopeful were the signs of modernism during the 1860s and early 1870s. He was able to create a new role for color, and if his simplification of ornament looks forward to its elimination by the International Style, nevertheless, he offered a solution to its relative absence by appealing to the music of color to fill the void. Decorative color is the theme of these interiors, not ornament; color as strong and virulent as any that has been employed by architects in history. In the end, it is Jones's contributions to color theory in the
Grammar that are still worth noting for the practicing architect today, so that the whiteness of the International Style, and the pastel colors of Post-Modernism find their counterpoint in Jones's ornamental, fully-saturated colors of the past.

**A Critique of Jones's Decorative Ornament**

As radical and modern as Jones's interior designs are, they achieve their revolution in decoration at the expense of ornament. This at once explains their modernity and reveals a fundamental flaw in the decorative program. The decorative function of color is given prominence over the ornamental agenda, and decorative space through color is exaggerated at the expense of the concreteness of the ornament. The interiors are radical statements about colored space; the ornament is secondary to decoration and basically functions only to enrich the juncture of wall and ceiling. Using the same tripartite division of the wall as Robert Adam, Jones simplified the ornamental agenda to the area of the cornice and dado rail, eliminating ornament from the wall-fill. This is precisely the area which Adam celebrates in his Etruscan Room at Osterly Park in 1763. Certainly Jones's ornament is more advanced than the Cinquecento emblemism of Adam, but something of great importance has been lost in Jones's designs. Color alone cannot substitute for the ornamental agenda: this is a fallacy of Jones's designs for the interior; it substitutes the decorative for the ornamental, or, in other words, a system of distribution for the thing needing to be distributed. Put differently, Jones subverted the means for the ends where ornament is a means to the decorative end.

To be sure, Jones was only following the ideology of the liberal reformers which he himself had helped to create. But this ideology was dangerous for the well-being of ornament. In Pugin's, ornament was to be limited to the constructive features of the
building, thereby enhancing construction. Ornament could not be constructed, but had to have some utilitarian purpose to rationalize its employment. Jones agreed with this conventional principle and propagated it in proposition 5 of the Grammar. To this position he added a curious addendum: "that which is true must be beautiful". Surely this is not true: surely truth can also be sublime in a way that is not beautiful, or picturesque without being beautiful. In any event, the net result was to force prerequisite conditions upon ornament which are, I think, detrimental to it. Why should ornament be limited to the construction? The reformers would have argued that without this restraint, ornament would have no discipline, no integrity, and serve no function. The net effect of their reforms was to subvert ornament into a purely decorative status. But the reformers tended to think only in terms of two-dimensions, or air Jones did, fractally. From a three-dimensional standpoint, the restraint is false. Ornament can be constructed as a three-dimensional object; it makes no point to limit it to construction.

The fallacy of Jones's position can be best seen in his interior designs where he all but eliminated ornament from his program. The weakness of his ornament can be seen in the repetitious way he employs the Greek anthemion and Moorish modern ornament. At least his Oriental ornaments allowed for updating the original and creating new ornaments in that style. But the excessive use of the anthemion bespeaks a paucity of invention on Jones's part, and a willingness to gloss over the weakness of his position by incorporating eclectic references to the past which further undermine his modernity of decoration. The reason for the limitation of ornament in his interiors is clear, despite the rationale of the ideology: Jones preferred the colored spaces of his color fields to the complication of space that an introduction of ornament into the wall would
engender. Jones wanted to dematerialize the wall in order to create spiritual space; ornament would have given some materiality back to the wall and limited the transcendent function of pure color. This is essentially a modern point of view, but Jones had to sacrifice his strengths in ornament for his love of pure color to achieve it.

I criticize not so much the designs themselves as the reasons Jones had for his design decisions. Hindsight has proven that modernity has been fatal to ornament and decoration as well. Post-Modernism has only barely begun to recover our inheritance, so ruthless was the proscription against ornament and decoration during the International Style period. Jones's modernism has a cost, and the price was to eliminate all that he considered dear to his own modernity. To question the nature of proposition 5 in the Grammar is to question the fundamental Victorian tenets of design; but these concepts need questioning if we are to make a true point of departure from Jones’s theory of conventionalization. Ornament cannot afford to be limited by utility; it is a higher art than utility, and no amount of super-added ornament can bring meaning to function. All this can do is to limit the vitality and expressiveness of the ornamental tradition by tying it to structural considerations which have no essential meaning of their own. Ornament is a language: it needs the freedom to express its thoughts and ideas without the imposition of false extrinsic disciplines. The disciplines which are intrinsic to ornament are the proper ones for the ornamentor to follow: these are as complex and exact as those of poetry and music.

That Jones thought of interior design primarily in terms of color is borne out by another color study from his Notebook (Fig. 71).
Here crudely cut pieces of color paper, like those of the modern ColorAid, are assembled to prefigure the painted design. There is obviously in this kind of exercise, no thought given to the ornamental program: this would come at a later stage of the planning. Importantly, the emphasis is on the wall-fill with its passages of deep, nearly ochre yellow in the design on the left, and pale blue on the right. Both designs feature intervals of hue which are adjacent on the color wheel, with the complements being established by pieces of furniture against the dado. In the design on the right, Jones has contradicted proposition 27 in the Grammar which states that: "Black grounds suffer when opposed to colours which give a luminous complementary". Here the deep purple panels of the door and dado give off a yellow after-image which mitigates the black moulding of the frame and dado rail. The point I want to stress, however, is that the decisions relating to ornament follow Jones's prior assessment of the color in the interior. While the issue
of ornament should proceed apace of the color decisions, they are obviously secondary to the decorative scheme of color.

How simple Jones's agenda for ornament is in the interiors is seen in another design for an interior (Fig. 72) which completes the design of Fig. 70 discussed above.

Only the cornice and coving have been treated ornamentally, the remainder of the wall is purely decorative color. This design proves that Jones preferred the study in values to the study in complements discussed in detail in Chapter Four. Certainly these are handsome interior elevations, but the emphasis on the dissolution of the wall into space needs the contrasting materiality of ornament to complete the sense of reality demanded by the physical presence of the wall. These wall elevations suffer from an incompleteness and oversimplification which does not affect Fig. 60 because the richness of the color work on the doors makes up some of the ground lost by the absence of ornament. If we compare another set of designs for an interior with the elevations just considered, we must admit that Jones's interiors are more successful when he admits a greater amount of ornament into the design. In the set of four designs with a blue-purple wall-fill, greater attention has been given to the cornice with its diamond diaper and cable moulding. This part of the room asserts its presence because of the ornament, and richly complements the wall in a contrast of gold and purple. The dado has been treated in a modern way, and eliminates the usual color gravity which is typical of Jones's best interiors. Space has been given a material presence in the design and does not succumb to the infinite.

While these final designs are Jones's weakest, they are nevertheless instructive. The stronger designs are more highly ornamented. The Victorians may really be considered decorators rather than ornamentors given the nature of their ideology. But
Jones was a very strong ornamentor in his own right, and one wishes more rather than less in his interiors. The process of simplification begins with these interiors, a deadly process in the hands of the modernists who inherited the ideology of the Victorians, as Brolin has recently proved. Simplification allied to abstraction is undoubtedly a sound decorative strategy: but too much of either process is fatal to ornament. Ornament, in fact, needs only slight touches of both agendas, enough for the clarity of the image in its repeat condition; but too much abstract simplicity destroys the richness and variety of ornament. Jones comes very close to the edge of real impropriety in ornament in even his most spectacular interior designs.

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1 John Ruskin, *The Seven Lamps of Architecture*, "The Lamp of Truth", §IX, 44.
8 Compare Figures 53 and 65 for examples of armor used as ornament. I would like to thank Dr. Michael Darby for alerting me to this design at the Whitworth Art Gallery, and Dr. Carol Flores for making the identification of the Eynsham Hall attribution to this and to Fig. 52 and 53 possible. Dr. Flores's essential introduction to Owen Jones published in 2006 comes some 18 years after the effort of this unpublished manuscript written in 1987-1988.
9 See Wilhelm von Bezold, *The Theory of Color in its Relation to Art and Art Industry* (Boston, 1876): this argument is made throughout the entire book.
10 Dresser, *Principles*, 78.
Chapter 6: Music, Repose and Ornament

Music and Ornament

The sophistication and complexity of field design as evidenced by the Grammar of Ornament and practiced by Jones recalls the comparable achievements in the Victorian novel. To be sure, conventionalization found its earliest critic in Charles Dickens, who berated the fact-mindedness of the philosophy of art which banished three-dimensional flowers from contemporary carpets and wall-paper. But it is Jones's closeness to George Eliot which prompts the comparison. Both the novel and ornamental design deal with the values and judgements of the culture which create the respective forms of art. For example, the High Victorian concern for flatness in ornament is based on the moral argument flat ornaments should decorate flat surfaces; while in the novel, there is a similar moral concern for character (the ornament), and the relationship of character to society (the decorative field). But the Victorian novel and Victorian field design also reveal a fundamental grasp of the higher aesthetic and spiritual qualities of life, and this concern for the mundus imaginalis also reaches out to music as inspiration and analogy. Nor, finally, is it surprising that the Hall of Repose in the Baths of the Alhambra were devoted to music and ornament. Field design's fugitive optical dynamics parallel music analogically. The relationship between color' and specific musical notes was not lost on Newton, who ascribed musical notes to the colors of the rainbow. It is as if a different tempo were struck in music each time the eye focused on a different feature of the design. The musical qualities of Propositions 6 and 10 were evident to contemporary critics and historians.
of ornament. Ralph Wornum, the Librarian at the Schools of Design at South Kensington, wrote in 1856 that "I believe the analogy between music and ornament to be perfect, one is to the eye what the other is to the ear. Such a close analogy," he continues, "must convince us that ornament consists in something more than a mere artistic elaboration of either natural or conventional details, and that all mechanical ingenuity must be kept strictly subservient to theoretical principles."¹

The analogy between music and ornament was taken advantage of by Jones who built the most famous iron-and-glass music hall of the Victorian era, the very time he was completing the *Grammar of Ornament* -- that of St. James Hall, Piccadilly and Regent Streets, London. Jones's argument for theoretical principles of form and color to guide the ornamentalist was decisively against those who still believed in instinctive or intuitive design as some still did in the Royal Institute of British Architects, who met late in 1857 to discuss "polychromatic decoration."² "No man" Jones held, "would think of snatching a violin from the hands of a musician, who had gained his mastery by much earnest study and practice."³ Intuitive design would produce a cacophony of ornament as intuitive playing of the violin would do violence to the music. In the *Seven Lamps* Ruskin makes a crucial appeal to music in his advocacy of his particular approach to color in architecture and decoration: "Whatever harmonies there may be, one distinctly like those of two separate musical parts, coinciding here and there only -- never discordant, but essentially different."⁴ The key was the regulating philosophy of conventionalization and an ornament, a field design complex enough to stimulate the contemplative imagination. Propositions 6 and 11, the most lyrical of Jones's theory of field design, depend on the musical arabesque movement of the parent
stem for their beauty and effectiveness. They also manage to maintain, despite the complexity of detail seen in the conventionalized floral ornaments, a simplicity of purpose quite in harmony with the almost extravagantly intellectual arrangement of ornament. The analogy between color and music was taken to mean more than a figurative relationship. The relationship is surely one of a higher activity, because music and field design require the full creative powers of the contemplative imagination to attain the primary aim of repose in the Grammar.

There is no doubt but that the repose in the philosophy of art and in the aesthetic field design proposed by Jones was associated with the higher faculties of the mind and with an idealism representative of this super-consciousness. "Repose," Jones repeats, "could only be obtained when all works were arranged with a due regard to proportion, harmony and contrast." Jones’s regard for the Fibonacci series in proportions for the Golden Section proportion of 2:3 and 3:5 has already been noted: Jones justified these more subtle proportions which yield asymmetrical themes and motifs in design by an appeal to music. His friend, the chemist and color theorist George Field, contended that no proportion would be beautiful that did not have an analogy with music. Jones's theory of harmony of form is equally exacting and forms the counterpoint to his theory of the primitive colors in ornament: "Harmony of form consists in the proper balancing, and contrast of, the straight, the inclined, and the curved" (Proposition 10). The interrelationship of the three kinds of lines were meant to strike a chord in the music of ornament. The absence of any one of the three lines would lead to loss of repose and monotony of design. A perfect ornament which illustrates the melody of the three lines: the straight, the inclined, and the curved; is to be found in the Grammar and comes from
the Alhambra, Spain (see Fig.s 7 and 14). In this ornament the straight line at the center of the design contrasts with the inclined lines above it, all surrounded with the curved lines of the outline. To be sure, the ornament is infinitely more complex than the sum of its elements. What needs stressing is the idealization of the elements which create ornamental form; and, to repeat, the same idealization obtains in regard to the primary colors. George Field's analogies in his *Analogical Philosophy* of 1839 described the basic analogies between color, form, music and poetry participating in a common aesthetic milieu. Certainly, Jones's idealism was profoundly visual: his preference for the ellipse over the circle and the parabaloid over the ellipse denotes an eye sensitive to the refinement of geometrical curves in art. These refinements in the quality of form did not obscure the fact that all the basic forms were needed in field design for repose. In fact, each of the Moorish ornaments illustrated in the *Grammar* contains a miniature theory of design—Were the illustration of this diaper from the Hall of the Ambassadors in the Alhambra to have included sufficient repeats, the curved gold lines which terminate the straight central line of the ornament would have produced a secondary pattern typical of field design on the same plane. The geometrical tautness of this pattern would invoke highly optical sensations as the overlay of primary and secondary diaper ornaments compete for visual dominance. The orchestration of visual effects to be found in Moorish design yields a richness of sensation unequalled in the history of ornament according to Jones and provides the most direct model for Victorian field design of the late 1850s and 1860s.

Repose and the Ancient World
The earliest written record of the power of repose is to be found in the Pentatuch of the Old Testament. In Genesis, chapter 2, verses 1 – 3, we read that

Thus the heavens and the earth were finished, and all the host of them.
And on the seventh day God. ended his work which he had made; and he rested on the seventh day from all his work which he had made.
And God blessed the seventh day and sanctified it: because that in it he had rested from all his work which God created and made.

Repose is thus originally the rest from extreme creative labor: but not any kind of rest; rather, it is the holy rest of God. The origins of repose are super—natural and divine. The book of Genesis makes clear the sacred and super-conscious quality of repose: it is a counterpoint and ornament to labor. Of all the days of the week in which God was engaged in his work, including the sixth day when He created Adam, it was the seventh day which He sanctified, the day of abstinence from labor, a day for reflection, contemplation, meditation and peace.

Thus when the Israelites were given the ten commandments to make them a holy people for God, the sanctification of the seventh day occurs again as a holy law for them:
"But the seventh day is the sabbath of the LORD thy God: in it thou shalt not do any work, thou, nor thy son, nor thy daughter, thy manservant, nor thy maidservant, nor thy cattle, nor thy stranger that is within thy gates:" (Exodus,20:10). Moses relates God's reason for the holiness of the Sabbath as the day He rested after the creation: "wherefore the LORD blessed the Sabbath day, and hallowed it" (Exodus 20:11). In fact God was insistent upon the holiness of the Sabbath: it was not only one of the ten holy commandments, but one which God urged on the Israelites with special concern, repeating the commandment when He gave Moses the second time the tablets of stone wherein He had inscribed His laws:
And the LORD spake unto Moses, saying,  
Speak thou also unto the children of Israel, saying, Verily my sabbaths ye shall keep:  
for it is a sign between me and you throughout your generations; that ye may know that I am  
the LORD that doth sanctify you.  
Ye shall keep the sabbath therefore; for it is holy unto you. Every one that defileth it  
shall surely be put to death: for whosoever doeth any work therin, that soul shall be cut off  
from among his people.  
Six days may work be done; but in the seventh is the sabbath of rest, holy to the LORD:  
whosoever doeth any work in the sabbath day, he shall surely be put to death.  
Wherefore the children of Israel shall keep the sabbath, to observe the sabbath throughout  
their generations, for a perpetual covenant,  
It is a sign between me and the children  
of Israel forever: for in six days the  
LORD made heaven and earth, and on the  
seventh day he rested, and was refreshed.  
(Exodus 31: 12 - 17)

This is perhaps the most illuminating of the many passages concerning the  
Sabbath in the Pentatuch, for God reveals an essential reality of repose in that it  
refreshes just as he was refreshed from his work of creation by rest. Furthermore, He  
took special care to interweave the sabbath in the lives of the Israelites, numbering the  
sabbaths to create holy convocations (Leviticus 23) and applying the principle of the  
sabbath to the land of Canaan so that every seventh year might be a fallow year (Leviticus 25:  
2-7), and every fiftieth year a holy year for the land and its inhabitants, a year of liberty  
and reunion of families, a year of jubilee and. the end of debt. Thus the concept of  
repose was extended to all aspects of life and nature.

Initially the Sabbath was strictly enforced.: a man was stoned to death for picking up  
faggots on the Sabbath (Numbers 15: 32 -35). This act God Himself ordained, commanding  
at this time that the Israelites make a fringe ornamented with a blue ribbon for their  
garments so that they remember His commandments. And when He blessed them his gift to  
them was repose: "The LORD lift up his countenance upon thee, and give thee peace"  
(Numbers 6: 26). Thus the repose of God became both gift and symbol for Israel, a symbol
not only of the act of creation, but also of the mysteries by which God led his people out of Egypt. "And remember that thou wast a servant in the land of Egypt, and that the LORD thy God brought thee out thence through a mighty hand and by a stretched out arm: therefore the LORD thy God commanded thee to keep the sabbath day" (Deuteronomy 5: 15). Thus God interwove the mystery of creation with the mysteries of His deliverance of Israel out of the hands of the Egyptians: the Sabbath became an emblem and memorial wedding of life to the supernatural, and the body to the soul. Leviticus 23 discusses the holy days of the year beginning with the Sabbath, and considering the Passover, the Feast of the Harvest and the Feast of the Tabernacles. One day in particular, the tenth day of the seventh month, had a profound spiritual purpose. Then "Ye shall do no manner of work: it shall be a statute for ever throughout your generations in all your dwellings. It shall be unto you a Sabbath of rest, and ye shall afflict your souls" (Leviticus 23: 31 - 32). Thus self-chastisement essential for humility and meekness was practiced in Israel on a special Sabbath once a year so that a sense of mystery might be preserved, and the spiritual life enlarged.

The descendants of Abraham, Isaac and Israel perfected repose with the special counsel and help of their Father. But the concept of repose was well established as one of the five mysteries of life in the poetry of the ancient Mediterranean world according to Robert Graves. The five mysteries of the White Goddess were Birth, Initiation, Love, Repose and Death. Repose mediates in this scheme between Love and Death: it is the culmination of life, born out of love and leading to the inevitable. But a mystery need not necessarily be spiritual, and it is the spiritualization of repose which is God's
gift to Israel. And for the poetry of repose we may again return to the Bible, to the Psalms of David, whose love of God is surpassed only by that of Christ.

How much David loved God is evident in all 150 Psalms: his love is perfect and unerring, total and comforting, a love of the heart and soul. His love is a crucial context for his few statements on repose, 'for the abiding power of his devotion to God illuminates all his words. He begins in Psalm 85 with the recognition that repose is a quality of God: "I will hear what God the LORD will speak: for he will speak peace unto his people, and to his saints... Mercy and truth are met together; righteousness and peace have kissed each other. Truth shall spring out of the earth and righteousness shall look down from heaven," (Psalm 85: 8, 10 and 11). Repose, or peace, is thus considered divine, a mate for heavenly righteousness. Truth is considered not as a scientific trope, but as a product of the union of righteousness and repose, a spiritual rather than a material quality and a consequence of sacred goodness. Again, for David, repose is seen as a gift of God, an act of His tender mercy for mankind: "Blessed is the man whom thou chastenest, 0 LORD, and teachest him out of thy law; That thou mayest give him rest from the days of adversity" (Psalm 94: 12 and 13). In David's life, such peace, rest and repose was rare: his life was a constant struggle against Saul to begin with, then the Philistines and his enemies among his own people. This adversity strenthened his dependence upon God, for he relied upon Him for everything. No wonder repose seemed heaven sent, divine and essentially spiritual.

Even when David considered his earthly lot, he thought in spiritual terms. In Psalm 116:7 he engages in a dialogue with his soul: "Return unto thy rest, 0 my soul; for the LORD hath dealt bountifully with thee." David recognizes the difference here between his
material fate and the provision of God for his spirit. A surfeit of goodness for his soul, given by God, induces repose; fulness of spirit generates peace. And there was method to this bounty of goodness: "Great peace have they which love thy law: and nothing shall offend them" (Psalm 119:165). We have already seen the importance God gave to the Sabbath. But all the ten commandments are interwoven and integral, revolving around the command to love the LORD to the limits of our potential. The consequence of loving and obeying the law is repose: again it is a gift of God and a consequence of our love for Him and his unfailing goodness. The laws were conceived by God as making the Israelites holy and closer to Him. Jones will use essentially the same strategy 3000 years later, substituting laws of ornament for spiritual laws to generate a surfeit of visual information in order to induce the spiritual state of repose.

Essentially David thought of repose in terms of the LORD. God's peace was engraved in the minds of the devout as a holy state of being, sanctified by the sabbath and woven into the yearly ritual of life. As we have seen, the patterns of Jewish life revolved around the concept of repose as divine. Thus David states in Psalm 132:8 "Arise, O LORD, into thy rest; thou, and the ark of my strength." What distinguishes the act of creation is not the making but the hallowed repose which was the consequence of creation. Activity has not the same value for the ancients as repose. How true this is can be seen in 1 Chronicles 22:8-10 where David relates to Solomon his son why God has refused David's desire to build a temple. God tells David: "Behold, a son shall be born unto thee, who shall be a man of rest; and I will give him rest from all his enemies round about: for his name shall be Solomon, and I will give peace and quietness unto Israel in his days." This chapter is quite revealing of David's relationship to the Temple of Solomon, as it is
evidently David who made the major preparations for the temple, and in 1 Chronicles
28:11 it is David who gives Solomon the "pattern of the porch, and of the houses thereof,
and of the treasuries thereof, and of the upper chambers thereof, and of the inner parlors
thereof, and of the place of the mercy seat." And the insights which David had on the
subject of repose were conventional: for we read at the end of the Old Testament in the
book of Zephaniah 3:17 of the special place God reserved for his repose: it was a peace
grounded in love, the subject of the New Testament. Zephaniah writes that "The LORD
thy God in the midst of thee is mighty; he will save, he will rejoice over thee with Joy; he
will rest in his love, he will joy over thee with singing." Repose is therefore
couched in the most potent and powerful of realities: love.

For what could be more powerful than the love God has for his creation, for mankind
and nature? What could be more essentially Christian than the love that His son, Jesus
Christ, had for Jews and Gentiles alike? "Come unto me," Jesus says in Matthew 11:28-29,
"all ye that labor and are heavy laden, and I will give you rest. Take my yoke upon you,
and learn of me; for I am meek and lowly in heart: and ye shall find rest unto your souls."
These words, given especial dignity in Handel's Messiah, hold a key to the future of
repose: here Christ reveals His divinity as he assumes the burden of repose for His
Father, reaching out with compassion to all mankind. Repose must become again, as it was
in former times, more than an aesthetic. Repose must recapture in architecture its
essential spirituality. Architecture, as in the Temple of Solomon, is more than mere
philosophical concepts; and it is the function of ornament in architecture to restore
the spiritual basis of the art. Conventional laws of ornament must be grounded in the
higher laws of the spirit and in the wisdom of God. Repose has precisely this basis in
the super-natural, in the divine compassion of Love. We can no longer afford the
atheisms of Modernism, of materialistic structure stripped of anagogical reality. Science
and technology are no alternative to truth and the life of the soul. For a building to be
humane, it needs a spiritual program: this is precisely what ornament offers to architecture.
But the tragic story of the de-spiritualization of repose needs to be told before we can be
certain of remedies for the future. Repose must have had a long history of engagements
as the essential aesthetic in the fine arts since its employment in the Temple of Solomon,
as it has been fundamental to both the organic and mechanical periods in art from
prehistoric times. Both Egypt and Greece were committed to repose in the fine arts, and the
interpenetration of the arts was more prevalent then than today. As a primary
constituent of organic architecture, repose may be seen in the Gothic cathedrals devoted
to the cause of bringing heaven to earth: still a heavenly aesthetic. But in the
revolution of thought which characterizes the seventeenth century, repose became
more of a mechanical analogy, a conventional rule. Repose as a formal aesthetic had
its origins in theories of painting the Baroque period. In the poet Dryden's
translation of Dufresnoy's Art of Painting in 1695, he wrote that "after great lights there must be
great shadows which we call Reposes; because in Reality the sight would be tired, if
it were attracted by a continuity of glittering objects. The Lights may serve as a Repose
to the Darks, and the Darks to the Lights." Thus repose became a formal rule, an aesthetic
where once it had been divine. The path towards modernism was established, and the
despiritualization of repose began, to end with the virtual elimination of repose as an
aesthetic of ornament, and the elimination of decoration almost savagely.
But Dryden was aware, as was Jones more than 150 years later, that the juxtaposition of contrasts so that the mind's eye might find refuge from satiation in the sensations of its complementary opposite was conducive to repose. Moreover, Dryden must have been influenced by Descartes transcendentalization of God, and thus appeals to repose as a means of transforming one's imagination rather than chastising one's soul: "I have said...that both Poetry and Painting were upheld by the strength of Imagination. Now there is nothing which warms it more than Repose and solitude." This affirms the adoption of repose by the world of cultural thought as opposed to its heretofore prominence as an aesthetic of nature and God. To this time can be traced the crisis of thought in the theology and faith of religion, much like the one which affects science today. The scepticism of belief is more purely Modern, and not shared by the moderns of the nineteenth century such as Pugin, Butterfield, Ruskin and Jones as representatives of their age together with Mill and Arnold. Jones believed very much, we are lead to assume, in the Creator. Furthermore, the cultural analogy for repose is mechanical and scientific: repose is not God given, but God the mechanic gives it to imagination, stripped of the mystery of spirit and hallowedness. Now the painter can provide the state of mind by following a formal process: it is no longer a bequest from God. Thus the interest in sensations which the moderns have, and their consequent rejection of iconography and subject in art may be traced to the eighteenth century's theory of painting. Repose has become objectified: it is now a product; the magic has gone.

During the Neoclassical period, the painter William Hogarth placed more value on the psychological characteristics, thus broadening the role of science in the aesthetic, when he wrote: "Let breadth of shade be introduced how it will, it always gives great
repose to the eye as on the contrary, when lights and shades in a composition are scattered about in little spots, the eye is constantly disturbed, and the mind is uneasy.” It is important to note two aspects of Hogarth's discussion of repose here: first, that repose is considered as "great", and however much the aesthetic has become anthropomorphic, it still retains some of its sublime quality; and second, that Hogarth hedges close to nineteenth-century ground and the science of physiology, in his affirmation of the role of the eye in generating repose. Certainly, Hogarth's serpentine line of beauty would have much to do with initiating the aesthetic, but his emphasis on the uneasiness of the "mind" is quite in keeping with the Baroque revolution with respect to the humanizing of repose. And, there is still in Hogarth the Baroque belief that repose can be induced by formal means and conventional laws of art.

Toward the end of the century, the painter and aestheteian, Joshua Reynolds, offered this advice in his Discourses with respect to the compositionally generated repose and ornament in 1778:

In a composition, when the objects are scattered and divided into many equal parts, the eye is perplexed and fatigued, from not knowing where to rest, where to find the principal action, or which is the principal figure; for where all are making equal pretentious to notice, all are in equal danger of neglect. The expression which is used very often on these occasions is, the piece wants repose; a word which perfectly expresses the relief of mind from state of hurry and anxiety which it suffers, when looking at a work of this character...the same moderation must be observed in regard to ornaments; nothing will contribute more to destroy repose than profusion, of what ever kind, whether it consists in the multiplicity of objects, or in the variety and brightness of colours.

The advance in Reynolds' thinking about repose over Hogarth's should be stressed. Repose, for Reynolds, deals not only with the mind, but in the "relief" the mind feels in the absence of confusion, stress and business. Eye and mind were therefore intimately
related: the concept of repose offered by Reynolds is psychological and proto-physiological. Thus the eye is "perplexed" and given to "anxiety" where restlessness of the picture surface obtained, Reynolds' sense of due "moderation" of the canvas he applied to ornament: but with disastrous results for the future of ornament in the nineteenth century, For Jones and the circle of reformers around Cole were to seize upon this very criterion as a critical crutch for their attack on French three-dimensional ornament, and set the wheel in motion for the elimination of ornament altogether by Loos and the International Style architects. Reynolds also attacked bright ornamental color and the natural tendency of ornament towards profusion by appealing to the so-called higher, fine art of painting. But ornament is beholden to no art other than itself. Why should the dictates of painting subordinate ornament to principles of design which are extrinsic to it? "Profusion" in ornament does not destroy repose: complexity abets that repose. Ornament is not painting, and the formal laws of the latter hardly apply to the conventional laws of ornament.

But Jones fell into the trap laid by Reynolds, although he salvaged ornamental color from the formal prejudices of the President of the Royal Academy. The increasing scientization of repose is also to be noticed: psychology replaces theology as inspiration, and rationalization of effect takes the place of divine reflection. Painting replaces architecture as the principal concern for the conventions of repose. The mysticism of repose is lost to matter of fact canons of design: a transcendental God becomes the God in abstentia, yielding His hallowed place to human artifice. Gone from the realm of repose is any sense of nature: though fortunately the nineteenth-century critics were to restore nature's place in the schema of repose. The damage done by Reynolds was
enormous. The greater the definitional bound of repose, the more apt repose was to fall into the banal. To have associated ornament with this catastrophe signaled the end of the anagogical role of ornament: it too must be scientificized, rationalized and disciplined by false criteria. This attempt by Reynolds was strongly resisted by the revolutionary Romantic, William Blake.

Repose and Blake's "Jerusalem"

"This man (Reynolds) was Hired to Depress Art": thus begins Blake in his "Annotations to Sir Joshua Reynolds's Discourses" of 1808. It was Reynolds' observation that "The regular progress of cultivated life is from necessaries to accommodations, from accommodations to ornaments" to which Blake objected so strenuously, arguing that cultivated life existed first and that ornament was essential to that life, not a luxury (Blake, Complete Writings, 448). I opened Chapter One of this book with Blake's refutation of Reynolds on this score, so unusual is Blake's insight for the future of ornament, "Satan took away Ornament First". What an indictment of aesthetic Modernism by one who knew the significance of "Ornament" for all of humanity! Blake realized completely the relationship of the ornament to its host: "he who wishes to see a Vision, a perfect Whole, Must see it in its Minute Particulars, Organized" ("Jerusalem", ch. 4, 738), Ornament is the particular, the detail, the microcosm of the general form it adorns.

The banishment of ornament after W.W. I was a blow struck for tyranny: "Empire follows Art" and the arts and sciences are our only safe-guard against tyranny (Blake, "Annotations", 445). Witness the suppression of the arts under Stalin and Hitler
between the Wars. Blake's insights about art and ornament also anticipated the
now infamous essay by Adolph Loos on "Ornament and Crime" when he has Albion,
the recalcitrant anti-hero of "Jerusalem", say:; "All these ornaments are crimes,
they are made by the labours/ of loves" ("Jerusalem", ch. 2, 652). Thus the criminal
Albion, forever seeking the destruction of Jerusalem everywhere, perceives the
essential goodness of ornament as evil. His is a warped perception; but were not the
perceptions of twentieth-century architects also warped and twisted in their condemnation
of the single aspect of architecture most capable of generating repose? Repose is
interwoven throughout the text of "Jerusalem", and appears first in the frontispiece; I
hope it will not be an injustice to Blake's greatest poem to trace this aesthetic
throughout the 125 pages of his text.

To make an obvious distinction, Blake's use of repose in "Jerusalem" is
fundamentally poetic, and not ridden by the false aesthetics of formal conventions
dealing with painting which we have been analyzing thus far. There is in. Blake's usage, a
return to the spiritual power of the word, He begins in the Preface: "There is a Void outside of
Existence, which if enter'd into/ Englobes itself and becomes a Womb; such was Albion's
Couch,/ A pleasant Shadow of Repose call'd Albion's lovely Land." At first sight, the use of
repose here by Blake recalls Dryden's contrasts of light and shadow for repose; but note that
Blake has qualified repose as "pleasant", something happy and Joyful. Early on in chapter 1
of "Jerusalem" Blake mentions Vala, the mate of Luvah, one of the four universal spirits
in all men, as a "Shadow" ("Jerusalem", ch. 1, 631: see also "Vala or the Four Zoas").
Obviously this is not the shadow of painterly canvas, but some spiritual
attribute, "a shade of sweet repose"; furthermore, the emphasis is upon "sweet repose"
utterly different from the "long and cold repose" of sleeping Albion ("Jerusalem, ch. 1, 635). Repose thus has different states of being for Blake: pleasant, sweet or cold, even dismal. It is important to resist psychological interpretations here; Blake discusses poetic feelings not clinical emotions, and we must remember that repose has possibly an even longer tradition in poetry than in the fine arts. Later on in chapter one, when Jerusalem confronts Albion her father, repose is evoked again in ways which recall David's Psalms: "He [Albion] felt that Love and Pity are the same, a soft repose,/ Inward complacency of Soul, a Self-annihilation." ("Jerusalem," 646). How wonderful to describe repose as "soft"; surely this is the spirit speaking in terms of the Old Testament Zephaniah who describes, to repeat, God resting in His love. Blake is ever sure of the spiritual meaning of repose; sure, that is, of the fullness of the human spirit in which dwells our LORD. "Soft." is an adjective Blake will use again in Chapter Two: "Here Jerusalem and Vala were hid in soft, slumberous repose." Repose thus has texture as well as feeling, and the refreshment of repose is hinted at in the descriptive "slumberous".

Thus far, Blake is never far from Old Testament conventions with respect to repose; he has respirtualized the meaning. As Pascal observes in his Pensées, "The same meaning changes with the words which express it. Meanings receive their dignity from words instead of giving it to them" (Pascal, Pensées, §50, 12). Blake has therefore dignified the meaning of repose by adding to the store of its meanings in ways consonant with the ancient Biblical sacredness of the word. There are, furthermore, several attempts by Blake to wed the word repose to that of ornament. Albion's sons, reprobates all, defy Los the Creator, who yearns for the salvation of Albion, and "In stern defiance...they bore him a golden couch into the porch/ And on the Couch repos'd his limbs trembling" ("Jerusalem", ch. 2, 658), The couch is an
emblem for repose, and itself a very special ornament. With Albion's death in chapter 2, we
read:

   Shudder riot, but Write, and the hand of God will assist you! Therefore I write Albion's last
words:
   "Hope is banish'd from me."
   These were his last words; and the merciful
   Saviour in his arms
   Receiv'd him, in the arms of tender mercy, and repos'd.
   The pale limbs of his Eternal Individuality
   Upon the Rock of Ages. Then, surrounded with a Cloud,
   In silence the Divine Lord builded with immortal labour,
   Of gold and Jewels, a sublime Ornament, a Couch of repose
   With Sixteen pillars, canopied with emblems and written verse, Spiritual verse, order'd and
measur'd:

   Blake so fuses ornament' and repose that they become one and the same thing: only the
LORD could fashion such a sublime ornament, is hybrid with His favourite and hallowed
repose. It was a favorite image of Blake's. He would use it again in chapter 4: "Surrey
and. Sussex are Enitharmon's Chamber/ Where I will build her a Couch of repose, and my
pillars/ Shall surround her in beautiful labyrinths" ("Jerusalem", ch. 4, 727). Blake is sensitive
also to the close connection between verse and ornament, for in "Vala or the Four Zoas"
he writes of "golden letters ornamented with sweet labours of Love" ("Val a", Night
the Seventh, 340). Thus the "spiritual verse" on the canopy of Albion's couch may be
considered ornament in the same way that Islamic script in their decoration is ornament. It is
of great significance for ornament that the host in this passage is repose: spiritual and material
meld in symbiosis in the hands of the divine Creator.

   There is another image of Blake's in which the material ornament "the Couch of Death"
and "again he repos'd/ In the Saviour's arms, in the arms of tender mercy and loving/
kindness" ("Vala or the Four Zoas", Night the Eighth, 341). The arms of Christ or the breast of
woman are proper places for repose. Blake considers the breast an ornament: "Thy Bosom
white, translucent, cover'd with immortal gems,/ A sublime ornament not obscuring
the outlines of beauty,/ Terrible to behold for thy extreme beauty and perfection;"
("Jerusalem", ch. 4, 731). And Blake has kept alive at the end of the poem the essential
mystery of Repose mediating between Love and Death: "—all/ Human Forms
identified, living, going forth and returning wearied/ Into the Planetary lives of
Years, Months, Days and Hours; reposing,/ And then Awakening into his Bosom in the Life
of Immortality" ("Jerusalem", ch. 4, 747). Finally, man or woman could be the host of
another's repose: "Art thou Vala?" replied Albion, "image of my repose!" ("Jerusalem", ch. 2,
660); and again, "Repose on me till the morning of the Grave. I am thy life" ("Jerusalem",
ch. 3, 665). Ornament, for the human body is an ornament, and repose are thus united: the
spiritual triumphs in the material and the material is elevated by the spiritual.

Whether sweet, pleasant, soft, cold, or dread, repose as a state of being is resolutely
linked by Blake to the divine. But Blake stood outside the main currents of thought of his
time. As Kornwolf has pointed out, his was the revolution of the counter-culture. His enemy
Reynolds had the advantage of the main-stream, and Reynolds' advocacy of the
simplification of ornament the luxury was to be telling in nineteenth-century
ideology. Blake restores to repose its Biblical significance and its archaic poetic
value. While his insights had little impact on the nineteenth century, they are
especially valid today. After all, Blake wrote for the future, not for his own age. His
melding of ornament and repose points out the efficacy of ornament as a vehicle for a true aesthetic
in the arts, an aesthetic with its basis in the supernatural needed to revitalize our arts and sciences
today.
Repose and the Gothic Revival

It is within the *milieu* of the Gothic Revival that Jones developed his theory of repose. While the High Victorian Gothic had proponents who obviously considered repose in their designs, only the younger Pugin and Ruskin theorized about the aesthetic. But Butterfield cannot be excluded from consideration because he refused to theorize. His buildings are remarkable testaments to the sublime power of repose and born out of deep faith in God. His integral ornament, anticipating Frank Lloyd Wright, provides the stimulus for repose in his architecture. At All Saints, Margaret Street, London of 1849-59 Butterfield striates his walls with horizontal chevrons in black brick and provides repose from, the insistent verticality of the structure. These patterns are anagogic, giving meaning and a spiritual dimension to the building which becomes architecture because of its presence. The ornament defines the surface of the structure, and seemingly coming from no-where, it collides with adjacent walls and departs for destinations unknown, so much does it possess a life of its own. Within the church, three-dimensional ornament is provided as a point of repose for the two-dimensional patterning set within the spandrels of the arches. The pulpit is the *undoubted focus for this repose*: it is severely three-dimensional with miniature foliated capitols contrasting with the flat inlaid stone in a strict geometrical pattern. Repose is obtained by the contrast of two- and three-dimensional ornament, and by areas of complexity juxtaposed to passages of simplicity. The same strategy is also at work in the Chapel of Keble College, Oxford of 1873-76 but here with greater maturity and sureness of the visual objectives. High on the exterior, near the roof-line, Butterfield employs a tight diaper in white brick and in the gable of the crossing, another diaper which is looser and ornamented in the void
with blue crosses. The richer palette of the exterior employing tapestry red brick with white and a blue-black brick for the ornament, as well as a richer agenda of ornaments are all factors conducive to repose. Again, the interior is a tour-de-force and really too complex to describe: the repose needs to be experienced. The chevron patterns from the exterior are brought inside and placed on the apse wall in an emblematic way with the same richness of the red, white and blue of the exterior. The blind arcade of the left wall in the interior is particularly beautiful, with the flatness of the striated bands of chevrons, fleur-de-lys and quatrefoils, contrasting with the three-dimensionality of the arcade arches and columns. The real point of repose occurs in the horizontal contrast between the striated flat-patterns and a course of three-dimensional foliage which crowns the blind arcade. While the pulpit is not as successful as that of All Saints, Margaret Street, it too has its sense of peace and calm in the way it has been reduced to a miniature building, alive with two registers of miniature colonettes, the blackness of which is a foil to the gilded panels. Repose in Butterfield's architecture is intimately bound with the issue of revived faith and is conducive to the idea of a God granted peace and a oneness with the Holy Spirit.

It was really Pugin who initiated the Gothic revival, but his revival of Catholicism narrowed his support for commissions, although he still managed to build a great deal before his untimely and tragic death in 1852. For Pugin the issue of repose was bound more tightly to the decorative arts,\(^{12}\) and indeed the greatness of Pugin rests in his ornament and decoration more than in his conventional churches. As an organicist, Pugin was primarily concerned with erecting a scaffold of rules for ornament and architecture, most of which will pass into the theory of ornament of Jones. But it is Jones who is more
sensitive than Pugin to the issue of repose, despite Pugin's deep and abiding Christianity. Unlike Jones, who takes a world view of ornament, Pugin remains tied to the Gothic world which he tried to recapture through the realism of his art, through the moral materiality of his design, rather than revealing the essence and spirituality of the architecture through its repose.

Ruskin, who was otherwise very indebted to Pugin, developed a sense of repose and used repose as a critical canon by which to judge architecture. Ruskin develops in his *Seven Lamps of Architecture* a general law of ornament and repose: "not to decorate things belonging to purposes of active and occupied life. Wherever you can rest, there decorate; where rest is forbidden, so is beauty. You must not mix ornament with business, any more than you may mix play. Work first, and then rest. Work first and then gaze, but do not use golden ploughshares, nor bind ledgers in enamel."¹³ Ornament thus generates repose through its beauty. But for Ruskin, there are structures which should never be decorated: "there never was more flagrant nor impertinent folly than the smallest portion of ornament in anything concerned with railroads or near them."¹⁴ Ruskin therefore thought that activity was related to the function of labor and that the working life necessarily excluded the aesthetic awareness be appreciated. Repose was evidently a time when the imagination ruled the senses, when memory could reflect in peace, when the eyes truly had time to gaze. But this is a dangerous theory: why should the places of business and travel remain undecorated because, presumably, unappreciated. Only in a world of ornament in abundance could we afford to pay attention to Ruskin here: in a world stripped of ornament it is important to call for ornament everywhere, for it is needed everywhere. Cannot there be moments of repose
during the week of work; should ornament and repose be only reserved for the sabbath? Cannot we imbue the spirit of the sabbath in every day of the week? Christianity is not a week-end religion; nor should ornament and its repose be limited to times of rest only. Cannot we also plough with a steel plough ornamented with gold?

Only when we perceive the error of Ruskin's theory of repose can we understand his senseless banishment of the ornaments of the Graeco-Roman tradition in the “Lamp of Beauty”. Only when we appreciate Ruskin’s valuation of architecture as adorned by ornament will Modern building live again as architecture. For whatever the mistakes of Ruskin, he does not fall into the Victorian penchant for half-truths. His greatest contribution to the nineteenth-century understanding of repose also occurs in the "Lamp of Beauty" when he isolates the "conditions of probable repose". He writes that "The question of greatest external or internal decoration depends entirely on the conditions of probable repose. It was a wise feeling which made the streets of Venice so rich in external ornament, for there is no couch of rest like the gondola." It was also in his *Stones of Venice* when he came closest to Blake's understanding of repose when he observed the "saintly and severe" character of repose. But Ruskin was sensitive not only to the close connection between ornament and repose, he was also sensitive to repose in the lives of people, especially his students at Oxford. In Lecture I of the *Arata Pentelici* he writes that "we shall now be led into the examination of technical details, or abstract conditions of sentiment; so that the hours you spend with me may be times of repose from heavier thoughts." Repose for Ruskin is not therefore a question of aesthetic feeling or "abstract sentiment", it is also a quality of the mind, a peace from difficult mental problems, a rest from abstract mental turmoil. Repose is to be shared
among humans as Blake recognized in his "Jerusalem" half a century earlier. Another human being can be the "image" of our repose, a refuge from the cares of life, a source of especial joy. Feeling and mind become fused through repose; we surrender to the completeness and integrity of humanity: the life of the spirit. It is no accident of Ruskin's earlier commitment to the Gothic Revival that his lectures on sculpture in 1870 end with an appreciation of Greek art; both styles were committed to repose and to organology:

The Greeks have been thus the origin not only of all broad, mighty, and calm conception, but of all that is divided, delicate, and tremulous; "variable as the shade, by the light quivering aspen made." To them, as first leaders of ornamental design, belongs, of right, the praise of glistenings of gold, piercings in ivory, stainings in purple, burnishings in dark blue steel: of the fantasy of the Arabian roof --quartering of the Christian shield,-- rubric and arabesque of Christian scripture; in fine, all enlargement, and all diminution of adorning thought, from the temple to the toy, and from the mountainous pillars of Agrigentum to the last fineness of fretwork in the Pisan Chapel of the Thorn. And in their doing all this, they stand as masters of human order and justice, subduing the animal nature guided by the spiritual one... 18

The calm of repose is essentially a spiritual one for Ruskin and the Gothic Revival. This was a magnificent inheritance to pass on to Jones, who further elaborates upon the ideal.

**Owen Jones, Science and Repose**

But there are problems with Jones's understanding of the ideal of repose despite the favorable climate of opinion around him. Had he turned to Ruskin as did Morris later, he would have been more surely guided. Instead, Jones turned to a friend George Field for inspiration, and Field's influence would scientize Jones's conceptions of repose more completely than the eighteenth century had done to Hogarth and Reynolds. Initially, with Ruskin, repose became a critical canon of aesthetics, and inappropriate decoration the subject of his censure. Later, Ruskin embraced more of a Blakian sense of repose, identifying its essential spirituality and humanity. Field had another insight about repose which influenced Jones's theory and is closer to the
advances in understanding in the Victorian physical sciences. Field wrote in his *Analogical Philosophy* of 1839 which was in Jones’s library, that "every colour may be adopted and adapted as an archaeus, key, or tonic, according to the expression of the subject, the use of the tonic in each art being to give repose which is essential to the gratification of its organ."

The insight which maintains that repose is "essential to the gratification of its organ" points directly to the psychological dimension of repose in its function of addressing the imagination by requiring of color and ornament its proper role in the Neo-Classics. Field accepts and elaborates further on the aesthetic concept of repose in his theory of repose which is best stated in Propositions 3 and 4 which govern the thirty-three of the thirty-seven propositions dealing with conventional ornamental form and color. How close he is to Field can be determined at a glance: "Proposition 3: As in Architecture, so all the works of the Decorative Arts should possess fitness, proportion, harmony, the result of all of which is repose."

"Proposition 4: True beauty results from that repose which the mind feels when the eye, the intellect, and the affections are satisfied from the absence of any want."

Jones’s theory of repose is best stated in Propositions 3 and 4 which govern the thirty-three of the thirty-seven propositions dealing with conventional ornamental form and color. How close he is to Field can be determined at a glance: "Proposition 3: As in Architecture, so all the works of the Decorative Arts should possess fitness, proportion, harmony, the result of all of which is repose."

"Proposition 4: True beauty results from that repose which the mind feels when the eye, the intellect, and the affections are satisfied from the absence of any want."
and aesthetics. But the two propositions on repose are meant to be taken together, and the novelty lies with the second of the two premises. Repose is here acknowledged as a mental phenomenon, but the twist is entirely towards the psychological. Jones, no doubt, meant a more purely formal satisfaction; nevertheless, he couched his language in terms of psychology by appealing to the "absence of any want." True, his conception of the mind is comprehensive, even Biblical. But no mention is made of the Spirit in repose, no mention either of the sacredness of its status in ancient times, His conception is all mental feeling. There is one special insight here, however; that true beauty results from repose. Repose is thus given a strategic role in generating beauty, whereas previously, beauty had generated repose. Beauty thus cannot exist without repose.

Jones had another insight as well which is fundamentally optic in the relationship of color to repose. Not only psychology but also physics came under his scrutiny. In 1853 he wrote that: "You may have large masses of pale blue, because the white in the blue helps to give repose to the eye; so you may have large masses of purple-red, as shade here gives the same repose." The Grammar contains a subtler development of the theme. Proposition 22 states that "The various colours should be so blended that the objects colored, when viewed at a distance, should present a neutralized bloom," In 1867 with his last substantial publication on ornament, Examples of Chinese Ornament, Jones identified this bloom, or "even tint" with repose: "repose is obtained by evenness of tint" (Examples, 6). Thus the design could generate beauty at a distance, as well as close up (see, Grammar, "Ornament of Savage Tribes", 15). What needs to be stressed is that Jones combines the sciences of psychology and physics to buttress the aesthetics of repose. Repose, in his hands, becomes truly scientized.
It is not altogether surprising to find a new High Victorian psychology, based upon Jones's type of visual sensibility in design, being proposed at the time the Grammar was being published. Alexander Bain, a psychologist, member of the John Stuart Mill circle, and a friend of Jones's friend, G.H. Lewes, published his *Senses and the Intellect* in 1855. This book ended the exclusive reign of associationist psychology in England which Pugin's emblematic and symbolic ornament had so artistically exploited. Bain introduced the theory of discrimination as a property of the intellect distinct and equal to that of association. He had recourse, in so forwarding discrimination as a primary mental characteristic, to a lengthy analysis of the mechanism of the eye, because in sight "the sensibilities of difference and agreement" are most pronounced. Bain's inductive analysis led him to classify repose as one of the six major appetites: “Under this head of Exercise and Repose, I might include the more active of our senses, that is Touch, Hearing and Sight. These senses all embody muscular activity along with the sensation peculiar to each; and the muscular activity, together with the tactile, auditory and visual sensations, lead to weariness of the parts, with a craving for rest.” This is social science on the subject of Divine Metaphysics. There is no divine Creator here hallowing the repose from labor; simply, repose is but another appetite to be exercised and indulged at whim. In defense of Bain, we must argue that he is expanding the understanding of the processes operative in the function of repose, Fundamentally, however, this is a step backwards for mankind; the truth learned by science is not the truth of Moses, David, Blake and Ruskin, What Bain's analysis lacks is a connection with the mysteries of the supernatural present in the Bible and in Blake. Science explains but a limited portion of the truth, and demystifies the spirituality present in the tradition of repose from the earliest times to the Gothic Revival and its outmoded memory conscious associationism. The
truth of repose does not reside in human beings; fundamentally, it rests in God. Repose is a metaphysical subject adapted by aesthetics for canons of critical taste. The absorption by the Baroque of the metaphysics of repose and its translation into an aesthetic was a revolution accomplished with a strong Christian transcendental tradition at hand. Aesthetics then could rely on a metaphysical foundation: the aesthetics of repose did not eliminate its essential spirituality. The damage done by materialist science in its psychological analysis of repose was enormous: a selfish anthropomorphistic view of repose severed the link between God's gift to man and aesthetics. This much needs to be pointed out.

There are further issues at stake. The classification of repose as an appetite raises questions as to the mental desires and needs of repose, its relationship to the creative imagination and to higher states of consciousness. Yet it cannot be denied that the aesthetic of repose proposed by Jones has its origins in the human structure of the mind. In this context, the relationship of ornament to literature, to music and to the history of style was taken further by the Victorian critic Ralph Wornum who wrote of ornament being the mind’s necessity. Jones, in his essay on the “Ornament of Savage Tribes” in the Grammar, predicates the creation of ornament as the impress of the original individual mind on society. But Jones did not spiritualize either architecture or ornament; rather, he intellectualized repose in the context of emotional and sensual gratification. Evidently, human mentality is more important than divine spirituality; Jones’s priorities are to be deplored given the history of repose as God given.

The relationship of the mind to ornament, of ornament to repose, and the need for both ornament and repose as a prime requisite for the welfare of the individual and culture, were developed further by G.H. Lewes, physiological philosopher, collaborator and
close friend of Jones. If Bain's revision of British psychology guaranteed for repose a newly discovered, legitimate status in Victorian psychology and aesthetics, he does not explain the function of and emphasis upon sensation in Jones's conventionalizing theory and practice of ornament, Lewes attempts such an explanation in his *Problems of Life and Mind* by pointing out the physiological processes of discrimination. Different sensations, Lewes argued, have different reflex actions. More importantly, Lewes attributed to sensation the primacy of its reality: "all sentient acts are acts of Presentation or of Representation, usually called sensation and idea. The germans distinguish the directly excited feeling as 'the feeling in us,' – *empfindung*. The sensation, or Presentation is...considered real, because it has objective reality (res) for its antecedent stimulus." 24 Jones's theory of conventional decorative field design emphasizes both the ornamental motif and its color abstraction as "bloom": sensation rather than symbol, is the essential feature of his design. The abstractions of the ornamental motif which fragment into a decorative field replicate the sensations of sight. Repose is generated at the microcosmic, ornamental level, and by the macrocosm of the decorative field, Both the microcosm and the macrocosm are made up of sensations, the complexity of which nearly fatigue the eye, thus leading to a sense of repose.

Jones made two advances over the realist emblematic design of Pugin, which transform the High Victorian Geometric style into the ornament of the Aesthetic Movement. First, he translated the functions of sight, as they appear physiologically to the mind's eye, into abstract designs which themselves imitates the physiological functions of sight. The decorative field portrayed the realistic, psychological, and physiological conditions of the beholder,
transposed from the function of the senses into the abstract structure of ornament in its decorative field. There is, therefore, a direct parallel between the function of sight and the ornament of the decorative field which itself imitates the physiological functions of the mind's eye. Secondly, Jones appropriated the realism of Pugin's emblem with its attention to the materials and techniques of craft, and the realism of objective geometric design, and interiorized both as a realism of the higher faculty of sight. Jones thereby extended both the artistic and spiritual ground of ornament and decoration in architecture and the decorative arts, to include a realism in art based upon the physiological psychology of sight and its mental relationship to the aesthetic of repose.

Ornament in the decorative field, for Jones, has its analogues in the scientific abstraction of sensational form and color as it relates to the sensory function of the eye. The relationship of abstract sensation to the faculty of sight and to the physiological and psychological functions of repose, speaks further of a scientific realism in art based upon natural observation. Such observation generates a conventional theory of ornament accounting for the psychological, physiological and intellectual aspects of repose. Such a study is precisely the purpose of Goethe's *Theory of Color* which Lewes, the British biographer of Goethe, may have brought to Jones's attention after the publication of the *Grammar*. Goethe studied the fugitive, optical sensations which result in the mind's eye after certain experimental visual stimuli. This study of the after-images of color brought about a greater awareness of the importance of sensation to the intellectual functions of the mind. The translation of the physiological sensations of color and form into the decorative field corresponds directly with the desires for repose of the higher faculties of the mind. Through the sensationist decorative field, repose is able to
generate a transformation of consciousness necessary for the appreciation of truth and beauty. Jones's theory of repose represents a major achievement for the art of architecture in its synthesis of theory, practice and aesthetic intent.

**Repose and Matthew Arnold's Theory of Well-Being**

Jones's "cultivation of the eye", with its direct parallels to Matthew Arnold's literary criticism based upon the cultivation and perfection of the best-self, clarifies the nature of the higher realism toward which he was striving both in his theory and his design. He recognized in mid-Victorian Britain, the "present disordered state" of the decorative arts, and the "little feeling which exists for art." To redress the balance, he found it "necessary for the refinement and happiness of mankind to develop the innate poetry of his nature by the cultivation of the eye." To that end, he reasoned by repeated analogies to music, as we have already seen. He writes that since "there is only one point on the string of the violin where a particular note required can be produced ... it is hardly too much to assert, that the eye is equally sensible with regard to form and, we might add, to color."

Jones, anticipating Arnold, inveighed against the Philistines who insisted, with the weight of relativism on their side, upon the validity of their intuitive judgments with respect to art. He maintained, rather, that "it is by study and cultivation alone that any approach to perfection can be reached." Arnold would later claim in *Culture and Anarchy* that "perfection -- as culture, from a thorough disinterested study of human nature and human experience learns to conceive it, -- is a harmonious expansion of all the powers which make the beauty and worth of human nature." Jones, to recall, believed that repose would engender an appreciation of true beauty: thus repose is essential in Jones's view for cultural
perfection. There is, furthermore, a more subtle and essential parallel to be drawn between Arnold and Jones, which points to Jones's significance as both a theorist and a seminal figure of the Aesthetic Movement; but, above all, points to Jones's capacity for grasping with his theory of repose, an essential condition of human nature and experience. Jones's recognition of the value and function of repose paves the way for Arnold's insistence that "human perfection is an inward spiritual activity." Repose, with its history rooted in spirituality, and perceived by Jones as a mental necessity for appreciating truth and beauty, is thus related intimately to human perfectibility and culture.

Arnold upholds the spiritual life as "having for its characters increased sweetness, increased light, increased life, increased sympathy." The spiritual affiliation of culture, and the ideal of human perfectibility to which it holds, is fundamental to Culture and Anarchy. "Culture indefatigably tries," Arnold observes with moral emphasis, "...to draw ever nearer to a sense of what is indeed beautifully graceful and becoming." Repose is essential to the genuine atmosphere which culture needs in order to sustain itself and grow: it is manifest in the "felicity" (p. 275) of spirit, in the "true grace and serenity" (p. 237) of mind. Both Arnold and Jones see repose as a mental quality related to the higher domain of the spirit. Arnold's spiritual insight on repose as serene grace is essential to an understanding of culture: "The human spirit is wider and the most priceless of the forces which bear it onward." Arnold's cultivation of the "best-self" is a true reflection of his insight into man himself. It is a cultivation which reaches outwards from its inner individuality to embrace mankind properly as humanity. Therefore, Arnold stresses with Goethe that "man must live from within outwards" (quoted by Arnold, 160). But Goethe is only partially right in his emphasis. Repose is generated by outward stimulii coming inwards: from the reality of ornament to the
inner reality of the mind. Thus true perfection is a cultivation which also strives within
towards the "sweetness and light" of the pure spirit. The "within" must be grounded in the
serenity and grace of repose as the necessity of the mind; without, man must cultivate
the best possible character he is capable of, perfecting himself that culture might be
perfected. This is the only true hope for real democracy, as we shall see in the conclusion.

Arnold's theory of well-being is predicated on the perfectibility of the best-self.
Through the cultivation of repose and the spiritual life, an essential transformation of
being takes place. Being begins the metamorphosis into a state of becoming; perfection
takes on an active and dynamic role. The product of the cultivation of the best-self is
euphoria. This is a state of joy and spiritual delight; a condition aroused by repose
and sustained by truth. This metanoia is an intoxication of the spirit: it is the mental feeling
one gets from the contemplation of ornament. As ornament is essential for the generation
of repose, and repose essential for the mind and spirit, so ornament is essential for a
healthy democratic culture. The cultivation of the best self demands the cultivation of
repose: repose requires ornament as its antecedent stimulus. Ornament is thus
essential to euphoric metanoia, essential not only to the well-being of the individual, but also
essential for culture which seeks, as it must when it is healthy, for perfection and humanity. Thus
ornament, culture and the life of the spirit are intimately related: inwardly, in terms of
repose; outwardly, in terms of truth and beauty. The eye is indeed the window of the
soul: Jones's stress upon its cultivation was his way of emphasizing the spiritual purpose of
ornament, a purpose at once individual and social. Ornament is thus predicated upon well-being
and the cultivation of spiritual perfection; its presence as the art of architecture guarantees a human
and wholesome democracy. As the res of repose, its reality stimulates the best in the humanity, the sense of individual and collective well-being essential to the health and vitality of civilization.

16 I apologize to the reader for being unable to find the source of this quotation. As consolation I offer the reader two further quotations from the *Stones* Vol. II "The Nature of Gothic": "listless repose" (205) and "The sculptor who sought for his models among the forest leaves, could not but quickly and deeply feel that complexity need not involve the loss of grace, nor richness that of repose" (208).
24 G. H. Lewes, *Problems of Life and Mind* (Boston, 1847), 137.
32 Ibid.
Conclusion: Towards an Art of Architecture

Ornament is quintessentially a human, visual language: it is the first of the human languages to deal with the reality of nature. From the earliest time, ornament dealt with reality in terms of symbols and cyphers, distilling the essence of primitive knowledge of the cosmos and terrestrial nature into pictographs of magical and mystical significance. These early ornaments were, furthermore, compounded into emblems and stories, so that the language was from the beginning highly discursive and literate. Ornament is therefore both analogical and anagogical, using visual metaphor and visual allegory to create intelligible statements about mankind and his place in nature. As visual statement, ornament dealt with the mysteries of life and death, with the longing for permanence amidst constant change, with the sense of renewal amidst decay, with cosmic eternity amidst the earthly temporality of the seasons. Ornament was thus a highly articulate language before the invention of cuneiform and the hieroglyph, capable of expressing mankind’s deepest thoughts. Ornament therefore honored architecture and the decorative arts with the transcendent ideas of the age, spiritualizing its host by the mental dignity of a precise and lucid order. As symbol, ornament was not originally confounded by the materiality of a realist vision of life; rather, it was an idealist language, not focusing on the thingness of itself, but pointing beyond itself to a literate truth. Thus ornament is, in its original essence, a transcendent language, of
ideal, visual content: it represents mankind's earliest attempt to link with the spiritual realm of the supernatural.

Ornament is more than the factualness of its material symbol. It is the original language of mankind's earliest understanding of the reality of space. The symbol is always integrated into a spatial context: the figure of the symbol needs the ground of its space for clarity, integrity and visual coherence. Space is always present in the representation of the ornament; and, so much so, that the language of ornament becomes fundamentally the language of our understanding of space. This is true even in black and white: when color is introduced to ornament, the results are much more dramatic. Each colored ground has a spatial dynamic, and color also introduces a sense of three-dimensionality into the ornament whether the ornament is conceived as flat or as three-dimensional. When colored, space takes on the quality of depth essential for an appreciation of its three-dimensionality, especially when the ground is colored blue, the most precious of the primary colors. In ornamental design, space can become what it usually is not in reality: sacred, transcendent and supernatural. As the context of the other-worldness, its uniqueness and its spirituality, or, by means of ornamental color, space can also become materialized, substantial and palpable. Again, the unknowable becomes knowable by analogy and anagoge: the ornamental use of space therefore expands our knowledge of the universe through a select system of correspondances between our reality and the reality of ornament. But ornament also needs the real space of a building or object in which to exist. The lineaments of a building, as Bloomer has discovered, are essential to the life of the decorative field which distributes the ornament.
Sensitive lineaments allow the necessary space for the decorative field to exist:

conversely, tyrannical lineaments in architectures suffocate the decorative field and its ornament. The relationship of ornament to its architectural or object host is problematical. Whenever ornament has been valued by culture this relationship was never questioned. Every aspect of Egyptian architecture, for example, was considered appropriate for decoration by ornament. To disguise material by ornament was riot considered dishonest morally: the ornament and not the stone was principal for Egyptian conventions, With the Gothic Revival theory of the younger Pugin, the honesty of construction and materials has become canlionical for designers today as Brolin has pointed out (Flight of Fancy, 112-16). Ironically, a great ornamentor set the stage for the elimination of his favorite discipline: for, where materials are valued for their own sake, ornament must necessarily be limited at best, or dismissed as parasitical of the host at the worst. By nihilistically and reductively limiting architecture to the play of "light" on "masses", Le Corbusier could state that "the task of the architect is to vitalize the surfaces which clothe these masses, but in such a way that these surfaces do not become parasitical, eating up the mass and absorbing it to their own advantage" (Towards a New Architecture, 37). There is an interesting insight here: that ornament absorbs surfaces to its own advantage. Basically, however, I cannot disagree with Le Corbusier more: ornament can only be a parasite to Philistines who spurn the spiritual in architecture. But this notion persists in contemporary writing on the subject. In discussing Kant's [false] idea about ornament, Wigley writes of ornament as "an outsider that "always already' inhabits the inside as an intrinsic constituent" (Perspecta, 23, 160). Like ornament which it represses, aesthetics too, according
to Derrida "violation by a subversive alien, a foreign body that already inhabits the interior and cannot be expelled without destroying the host" (op.cit.). It is the analogy that is false: that ornament could be considered a parasite presumes the higher function of structure or space in architecture. But are words the parasites of the page? Are precious jewels considered parasites of the gold which contains them? Wigley speaks with more authority when he asserts that "ornament is embedded in the structure" (op.cit. 157); as Bloomer has been at pains to point out, ornament is hybridistic rather than parasitical. Ornament is embedded in structure even when it is simply applied to the surface, as in Greek ornament; structure and ornament meld to create a new typology in which the structure becomes of secondary interest to the renewed clarity of the ornament. The nineteenth-century ideology of Jones tried to make ornament secondary to structure, but this was also a mistaken notion. It is a mistake to make language, any language, secondary to the host: words give dignity to meanings; ornaments give honor to buildings or objects. Jesus was clear on this point: "by thy words thou shalt be Justified, and by thy words thou shalt be condemned" (Matthew 12: 37). Ornaments are the words of architecture. By the art of ornament building is transformed into architecture. As a visual language, ornament articulates structure and space in ways which neither pure structure nor space can of itself accomplish. Following the debacle of the International Style revolution, architects need to restore the lineaments of building which are cooperative with the language of ornament, Only then will building recover the art that is architecture; only then will ornament give dignity, honor and grace to structure and space. The inheritance of history and culture are at stake.
As the art of architecture and the art of design, ornament is deeply indebted to the sciences. Ornament has continually updated its knowledge of popular science, reflecting civilization's increasing understanding of nature and the COSMOS. It has always been in a privileged position, from the earliest distillation of primitive knowledge into picture language to the more advanced representations of geometry during the Egyptian period. Three sciences are particularly essential for ornament: botany, mathematics and physics. These are the fundamental building-blocks of Jones's ornament. To these sciences he added an astute translation into ornament of contemporary physiology with the help and influence of his friend G.H. Lewes. The mathematics, or geometry of the diaper or grid, are essential for the distribution of ornament and ornaments by the decorative field. But mathematics also conditions the ornament itself and helps to relate the ornament to its decorative field. His knowledge of mathematics also conditioned his design, as the great precision of geometry led to a perfection of ornament and the decorative field which distinguishes it from the early influence of Islamic ornament and decoration. The precision and perfection of Jones's designs is essentially Occidental; for, the ornament of Islam typically built in accidents and flaws as conventions into the design to humanize and humble the craftsman. Jones was concerned with the machine and with the perfection of technology; consequently, his designs are characteristically flawless in intention though not in execution of the design itself; there are no deliberate mistakes in his work which would point out a deeper indebtedness to Islamic design, only the accidents of the hand. Jones also pinned his hopes on a modern ornament on the science of botany, and this
faith in science is fundamentally Western. Because more than half of the images of ornament in the Grammar derive from conventional interpretations of flowers and leaves, Jones's faith in botany was historically well founded. From the earliest time artists have been drawn to the beauty of flowers and to the mystery of the leaf. Jones suggested expanding upon this repertoire of historical ornaments to include the popular but artistically neglected flowers and leaves of the English countryside. His idea of modernism seems to have been new forms for old purposes: botany could provide the new ornaments he sought in God's nature. Finally, Jones was committed to the science of optics: he was a colorist of the first order, and read much of the prevalent literature on the subject. He was also a dynamic colorist, exploring new color harmonies which were to anticipate the findings of later color theories. But science was not an end in itself for Jones; rather, he synthesized scientific ideas into the art of ornament, keeping abreast of the latest developments in these sciences in order to vitalize his design. Ornament is an Integrative subject: the tendency of science to specialize is suppressed in ornamental design by the adjustment of competing claims that one science might have in relation to another. Ornament hybridizes science the way it hybridizes its host: in the end, the art of ornament dominates the science and technology of its means.

Ornament also stands in the most intimate and direct of relations to theory. Theory generates ornament: ornament generates theory. Rarely, in the history of art, are the connections between theory and practice so well defined and so comprehensive as they are in the Grammar and in Jones's own ornamental practice. Above all, Jones's
theory is a theory of abstraction. Nature is the source for this abstraction, and color and geometry the principal agents of the theory of conventionalization which encourage and limit the abstractive process. Despite the flaws in Jones's theory of conventionalization, this theory still offers the designer of tomorrow the richest inventory of ideas for ornamental design. Certainly, in the ornament of the future, we would not wish ornament to play a secondary role in design. Ornament deserves to be, once again, the principal agent of architectural design. This is its role in the history of architecture up to the twentieth century. Today, we can no longer afford the anti-intellectuality, and nihilism of the Moderns. Nor can we afford to begin the practice of ornament again without the benefit of instruction from the great ornamentors of the past. Invariably, the greatest ornamentors of the past such as Alberti, Jones and Sullivan have produced great theories of ornament which clarify their own practice, and offer the surest guides for the rebirth of ornament for the future. Jones's own theory has much to recommend itself: it is culled not only from the sciences, but also from the history of ornament. A five thousand year tradition stands behind the theory of conventionalization. Certainly this is a profound inheritance, and with the theory of Sullivan, the best point of departure for the ornamentor of the future.

What makes the theory of conventionalization such a vital document for design is the implicit theory of organology upon which it is based. Organic ornament may be distinguished from mechanical ornament, from ornament which suffers from a surfeit of science. Schlegel writes that; "Form is mechanical when, through external force,
it is imparted to any material merely as an accidental addition without reference to its quality; as, for example, when we give a particular shape to a soft mass that it may retain the same after its induration. Organical form, again, is innate, unfolding itself from within, and acquires its determination contemporaneously with the perfect development of the germ.1 This idea of the unfolding of the germ will be crucial to Sullivan, Jones's organicism is simpler; it is rooted in the belief that flowers and leaves are the proper subject for ornament, that these ornaments of nature are God given and universal, that nature can supply all the rules necessary for good ornament because this has been the prime insight of the ornamentors of past civilizations. Jones's larger view of history is also organic, with a cycle of youth, maturity and decay followed by rebirth. Importantly, Jones's own practice reveals crucial explorations of organic ornament. His practice follows his theory. It is his subscription to organics that Occidentalizes his Oriental geometries and motifs. Although Coleridge was not an author listed in Jones's library at his death, Coleridge's organology certainly had a profound influence on Jones. He even titled one of his most organic wall-paper ornaments from the early 1860s as "Coleridge", a paper again in production by Arthur Sanderson and Sons. As we have seen, it was Coleridge who claimed ornament as an essential human language. Coleridge also organicized literary criticism at the beginning of the nineteenth century. Organic ornament, following Wright, has changed its meaning. In Jones's time, ornament could still be organic if applied to construction: with Wright, ornament had to be integral, and "of" the structure, not "on" the structure. Wright's objections would rule out the history of ornament which generally applied ornament to the structure rather than building ornament into the structure. Visually there is little difference between the two
systems; both transform the host and dominate the materials. But, in Wright's hands, ornament would barely emerge from the nature of the materials employed, so repressed could ornament be in an organic architecture devoid of real decoration. Even an organic ornament needs freedom of expression, a place in the building in which to grow and attain vitality and life. Jones's theory of conventionalization is thus rooted in the larger theory of organology, a movement which crosses the disciplines of philosophy, literature, poetry and architecture.

If Jones had contributed no more to the theory of ornament, his theory of conventionalization would alone have assured him a special place in ornament's historiography. But Jones had something more essential to offer. His theory of repose locates his theory of ornament in an aesthetic which has deep metaphysical and mystical roots in the psyche and spirit of man. More than that, repose is sacred to God. Repose is God's way of renewing and refreshing Himself: it is His special gift to mankind; "For I know the thoughts that I think toward you, saith the LORD, thoughts of peace, and not of evil, to give you an expected end" (Jeremiah 29: 11). It is more than an aesthetic: it is a way of life; "Follow peace with all men, and holiness, without which no man shall see the Lord:" (Hebrews 12: 14). Jones's theory of organic conventionalization is based in one of the most fundamental qualities of life: the repose, peace, rest, quiet, and renewal, revitalization and restoration of the body, mind and soul. As we have seen, ornament is essential to inducing the mental feeling of repose. We have also argued that ornament and repose are essential for culture and democracy. The perfection of the best-self depends upon the metanoia of repose; thus, repose encourages the development of the human
spiritual inscape as well as the outer, public being. Repose transforms the eternal sense of being into a dynamic, perfecting sense of becoming. Through repose we are not only capable of appreciating beauty and truth, we become closer to God. Repose, like chastening, "yieldeth the peacable fruit of righteousness" (Hebrews 12:11). Jones's strategy of linking the theory of conventionalization to the aesthetic and metaphysic of repose was his means of binding ornament to the eternal, pervasive spirituality of mankind. The function of ornament is the moral uplifting and spiritual perfection of humanity. Ornament guarantees the perception of art in architecture because we need the feeling of repose to discern the truth and beauty of architecturally embellished structure and space. Without ornament there can be no true repose: structure and space devoid of ornament fulfill only basic materialistic needs; it can never be organic, never pretend to architecture.

What ornament offers to civilization is an aesthetic and metaphysic bound to the supernatural world of the Divine. It is an integrative, holistic and pluralistic language which is essentially democratic in the way it appeals to everyone without specialized training in the grammar of its forms. Ornament is immediately apparent to the beholder: it has an immediate impact on the viewer with its induction of repose; furthermore, it is democratic in the way it encourages the perfectability of the best-self necessary for culture and civilization. Both religion and science have lost the sense of the supernatural which ornament and repose can restore to culture and to the individual. The materialistic aesthetic based in the sciences which has dominated "architecture" since World War I, with its belief in the machine and progress through
technology, this shallow aesthetic, is bankrupt. We need again the supernaturalism of repose: ornament offers civilization the opportunity to reaffirm its connection with the cosmos, with mystery, with nature and, above all, with God.

When we reflect upon Jones's achievement in ornament, we must admit that he was a genius in trouble, not a troubled genius. His commitment to modernism in ornament and architecture heralded his ultimate rejection by the Modernists. Jones was too concerned with the lessons of history, nature and God to be influential as a proto-modernist revolutionary of the International Style. It is precisely these comprehensive concerns which distinguish him from architects of the twentieth century. Modernism as a movement is impoverished; it may be resurrected as a revival, but its creative days are over. Post-Modernism is a critical interlude before a new synthesis can take place. The architecture of the future must be grounded in the art of ornament if it is to succeed in the agendas which Jones perceived and theorized about, agendas which transcend the obvious function of architecture in civilization. Jones's theory of organic conventionalization, grounded in the metaphysics of repose, offer the best hope for an art of architecture sensitive to the greater, spiritual needs of democracy, culture and civilization.

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Glossary

**Abstraction**: the conceptualization of ideas and images which idealizes without destroying the essential identity of idea and image.

**Acanthus**: a Greek ornament which generated a new style of architecture in the late Classical and Hellenistic periods. Adopted by the Romans, the acanthus became an emblem of Roman power and affluence. The iconography relates to the rebirth and revival of nature after the death of winter.

**Anthemion**: a Greek ornament deriving from Assyrian ornaments and possibly the Egyptian lotus. An ornament of perfection and beauty, the anthemion is based on the honeysuckle flower which probably shares the same iconography as the lotus.

**Arch**: an ornament as well as a constructional form, the arch is associated with light especially in Nordic mythology where, as Bifrost, it was the bridge of light which protected the entrance to Valhalla. The iconography of the arch shares in the tradition of the rainbow, one of nature's most beautiful sights.

**Archetype**: universal image of singular power, the archetype is a spiritual ideal based on themes such as the Messiah, the Pilgrim, the Knight, and the Goddess.

**Bell**: one of two common ornaments sanctioned in the Pentateuch of Moses. Paradise begins on earth, according to an African tradition, when a bell is rung and no sound is made.
Bloom: the organized, organic life of ornamental decoration achieved by the neutralization of ornamental form, space, and color.

Chevron: one of the most ancient of ornaments which represents the Water of Universal Life.

Cloud: a symbol of the heavenly realm as well as the-mystical world of the Second Ocean, the Chinese cloud frequently accompanies the celestial Green Dragon. The soft discontinuous curves are representative of heavenly power-- "Straight lines lead to trouble." (Chinese proverb). The cloud is symbolic of heavenly authority which the Chinese considered supreme-- "As above, so below." (Chinese proverb).

Continuous Stem: a Greek ornament symbolic of the will to life as expressed in the iconography of the Tree of Life, the continuous stem is universally employed in Eastern ornament and decoration. Besides being a border, it also functions in the field as an ogival diaper. It is also useful for irregular (i.e., a spandrel) shapes.

Conventionalization: both a theory and a practice, accepted by architect designers as a common style, which governs the material and fine arts.

Cross: a very ancient and complex ornament relating to the cardinal points, the symbol for planet earth, the warp and the weft in weaving, and the symbol of Christianity. It is a two-dimensional ornament with three-dimensional implications.

Decoration is applied ornament. Decoration distributes the appropriate ornaments, each to their own place in architectural space, according to a traditional hierarchy.
Diaper: the principal means for distributing ornaments in a field. The diaper is both an ornament in miniature and a decorative strategy in macrocosm. At larger scales, it is employed in city planning and in most design disciplines. See Ma'at for meaning and myth.

Egg-and-Dart: a Greek ornament of particular significance for architecture. The iconography relates to the cosmic cycle of life and death.

Feather: a Moorish ornament related to the diaper's meaning of equality and Justice as mercy.

Field: the decorative distribution of ornaments by means of the diaper as contained by borders. The material condition is the field of human activity. The field contains, however, both matter and space, and is therefore, an ideal construct.

Fleur-de-Lys: one of the most glorious of ornaments, the fleur-de-lys is an emblem of light and thus related to the Holy Spirit. It is, originally, a Phonecian ornament, occurring in both Minoan and Mycenean ornament before its employment in the Temple of Solomon. Very popular during the Gothic period, the lily was an emblem for both Catholicism and for the Priory of Sion.

Fret: invented by the Egyptians, the fret was popularized by the Greeks, but occurs universally in many, if not most, of the Ancient styles. It is related to dance and to the journey, or pilgrimage, through life.

Gestalt: a concept deriving from German psychology which proposes that we see in terms of organized patterns.

Grace: a quality of ornament
Grid: another word for diaper: see *ma'at* for iconography. An irregular grid may be seen on the wall of Prehistoric Lascaux.

Heart: a folk ornament of love and life throughout the world.

Interlace: a fractal form of the fret, meander or key. Motion and time are the subjects of this ornament; illusion and space the means by which movement and duration are created.

Key: see Fret.

Leaf: a popular and contemporary ornament, the leaf frequently accompanies the flower ornament. Many leaves like the acanthus, the oak, the chestnut, and the olive have become conventionalized from nature, but abstract leaves could become universal symbols of nature.

Lotus: an Egyptian ornament which became very popular with Buddhist ornament in India, China and Japan. According to the Koran, the Archangel Gabriel sits under the Blue Lotus Tree of Sidra. The Blue Lotus is an universal symbol of enlightenment.

Ma'at: the Egyptian Goddess of Justice and Mercy, her emblems were the diaper and the feather with which the soul was weighed.

Meander: see Fret.

*Mundus Imaginalis*: the intermediary world between earth and heaven, the world of platonic perfection and spirituality. The destiny of the Temple on earth is bound to its existence in the
transcendental realm of the spirit which is not heaven, and can be a guide to conduct and morality on earth.

Neutralization: the harmony of ornamental form, space and color so that all of the parts of the agenda of the design blend and bloom.

Paisley: a Scottish and Indian ornament denoting the cosmic Tear of God from which the Son of God springs to defeat Evil.

Palmette: a Greek ornament popular in Afghanistan. It is frequently used alternately with the anthemion in an ABAB pattern. I do not know the iconography of this ornament, but it probably extends that of the lotus.

Papyrus: the emblem of Lower Egypt and the gift of the god Thoth, the god of wisdom, this Egyptian ornament

Pomegranite: an Ancient symbol of unity in multiplicity in unity, the pomegranite ornament was associated with the Egyptian god Amon and with Assyrian rites. Decreed as as an ornament of the hem of the ephod for His Temple (Exodus 28:33) Jehovah linked the pomegranite to the bell as living statements of His Power and Glory. Persephone eats the pomegranite in Hades and thus the fruit and ornament have associations with death and life.

Quatrefoil: the power of four arches optimizes the primary variation needed to maintain the paradox and beauty of unity in variety and variety in unity which we find in nature and the arts. The four-leaf clover is a symbol of good luck, and the quatrefoil is also related to the daisy as a pearl of religion.
Repose: the psychological, physiological, aesthetic and metaphysical renewal felt in the viewer as being a quintessential quality of ornament. It is a sacred feeling based upon trust, serenity, grace, peace and much more.

Rose: a symbol of the elect amongst Pilgrims ans Sufis. It is also a symbol of female virtue (Dante's Beatrice and the archetypes such as the Lady and the Goddess). Both sight and smell are recalled in this ornament of beauty. Different colored roses have different meanings: red for love; yellow for friendship; white for purity. The Tudor rose is mystical in the number of petals.

Rosette: the rosette is a symbol of discipleship and the life of the Pilgrim. Typically, it is composed of twelve petals or elements, and is an Egyptian invention. See lotus.

Spiral: The spiral is an Ancient ornament and was originally triangular and square as well as round. It is specifically related to the hemp plant in its suggestion of coiled rope. It is also a profound mathematical and geometric concept.

Star: one of the earliest ornaments and mystically associated with the ceiling since Egyptian times. Sirius was a red star during the Old Kingdom, and one of the calendars was based on the star Sirius. The Dogon say that the ten sacred grain were brought to earth from Potolo, the twin dwarf companion star to Sirius.

Swastica: warns us that ornament needs to be God centered, for the Nazis drained all decent meaning from this Ancient ornament. It is common in Ireland and in the East, where it emblemizes the Wheel of Fortune. It is also integral to the cross.
Symbol: the basic glyph, pointing to some meaning other than itself. It is the cypher of ornament, and through ornament, related to the archetype.

Tartan: a dualed grid wherein line and color choices allow instant recognition of friend and enemy in a warrior society dedicated to the archetype of the Knight and Lady. Important for weaving and complex geometrical ornament.

Tree of Life: an Assyrian ornament borrowed from the Scythians (?), this ornament is associated with the Garden of Eden, protected by cherubim from the corruption of evil. It is a symbol of eternity which promises better than this life in the hereafter.

Trefoil: symbol of the Trinity and represents the musical note's tonic, octave and 5th. Very important ornament for Medieval architecture.

Vitruvian Scroll: was popularized by the Greeks and later the Romans, but was originally an Egyptian ornament related to the spiral and to the cosmic waters of the chevron.

Yin-Yang: emblematic of the duality or, in Tibet, the triplicity of reality as divided into polar opposites: positive and negative; thesis and antithesis; male and female; active and passive; war and peace.

Ziggurat: a Sumerian ornament containing three elements: the square; the chevron; and the cross. The seven platforms denote the seven planets, the seven colors, the seven days of the week, the seven virtues, the seven chakras and the seven prophets.
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Fig. 60. Owen Jones, Color Studies for Wall, Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).

Fig. 61. Owen Jones, Billiard Room for James Gurney, Regent’s Park, London, 1870, , Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).

Fig. 62. Owen Jones, Billiard Room for James Gurney, Regent’s Park, London, 1870, , Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).
Fig. 63. Owen Jones, Billiard Room for James Gurney, Regent’s Park, London, 1870, Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).

Fig. 64. Owen Jones, Billiard Room for James Gurney, Regent’s Park, London, 1870, Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).

Fig. 65. Owen Jones, Unidentified Interior Design, c. 1870, Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).

Fig. 66. Owen Jones, Alternate Interior Design Elevation for New Billiard Room, James Mason’s Eynsham Hall, 1872, Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).

Fig. 67. Owen Jones, Design for Stairwell (Victoria and Albert Museum Prints and Drawings Department, 8346, 20.5” x 9.6”, gouache and watercolor).

Fig. 68. Owen Jones, Three Elevations for Room Stairwell (V&A Images/Victoria and Albert Museum Prints and Drawings Department, 8361.A, 7.1” x 11.45”, 8361.B, 10” x 18.6” and 8361.C, 7.1” x 16.5”, gouache).

Fig. 69. Owen Jones, Interior Design for Eynsham Hall (V&A Images/Victoria and Albert Museum Prints and Drawings Department, E.1690-1912, 14.9” x 12.4”, gouache and watercolor).

Fig. 70. Owen Jones, Unidentified Interior Design (V&A Images/Victoria and Albert Museum Prints and Drawings Department, E.1700-1912, 12” x 17”, gouache).

Fig. 71. Owen Jones, Color Studies for Walls, Owen Jones Notebook (Whitworth Art Gallery, University of Manchester).
Fig. 72. Owen Jones, Four Studies for an Interior, c. 1871 (V&A Images/Victoria and Albert Museum Prints and Drawings Department, E.1689-1912, 12.1” x 19”, gouache)
Appendix A

The Early Editions of The Grammar of Ornament

The original Grammar of Ornament of 1852 is in the possession of the British Architectural Library: Drawings Collection (R.I.B.A.) and features the title page and perhaps half a dozen plates of ornament illustrated in water-color.

The 100 preparatory gouache, watercolor, and gold paint plates prepared by Jones and his assistants for the 1856 chromolithograph edition are in the possession of the Victoria and Albert Museum, Prints and Drawings Department.

1st EDITION: 1856, Day and Sons, London. £19-12-0. First issued in 10 parts comprising two chapters each. The Imperial Folio edition issued in 1856-57 consists of 100 plates.

2nd EDITION: 1864, Day and Sons, London, £ 5-5-0. 112 plates. Jones added 12 plates to the Smaller Folio edition of 1864 continuously printed from 1864-1868. Three printings are recorded: 1864 (National Union Catalogue, v. 284, 170); 1865 (English Catalogue of Books, v. II, January 1863-January 1872, London, 1873, 207); and 1868 (according to B. Quaritch, Letter to General Starling, Special Agent, U. S. Treasury in Europe, January 5, 1880, 10). I have found no recent bibliographical indexes (e.g. N.U.C., British Museum Catalogue, or the Avery Periodical Index) which records an 1868 Day and Sons publication. The 2nd Edition was translated into French in 1864, and published by Day and Sons.
3rd EDITION: 1868, B. Quaritch. 112 plates.

3rd Edition was translated into German in 1868, and published by B. Quaritch.

The Second Folio edition of 1864 substantially reduced in scale, quality and price, the original large folio edition of 1856. Nevertheless, the 1864 edition by Day and Sons, maintained strict architectural standards of compass and rule in the production of the smaller chromolithographed plates. B. Quaritch's subsequent editions, however, substituted free-hand renditions of the 2nd Edition plates, and it is from the 3rd Edition on that a notable decline in quality in both the chromolithographed and the engraved plates may be detected. In this 3rd Edition, misregistration, poor lithographic drawing and errors in color result in some instances in the complete reinterpretation of the original ornament. These mistakes are carried through into all subsequent editions by B. Quaritch and the recent 7th to 9th Editions.

4th EDITION: 1876-80, B. Quaritch, London. Three bindings available at £3-16-0; £4-4-0; and £5-5-0. 112 plates. (English Catalog of Books, v. III, January 1873-January 1881 (London, 1882), p. 243 is the source for this edition which I have not encountered in the Catalogues).

The Avery Periodical Index also claims an American edition of 1880. I have not examined this reputed edition to determine whether the plates were chromolithographed by Day and Sons or by B. Quaritch. In B. Quaritch's letter of 1880 to General Starling, he swore on oath that:
"1. I have never published a book with any other date than the actual year of its publication...

2. In facsimile-reprints of text, I have naturally left the correct, i.e., the original date. Publishers frequently send out issues with fresh dates, but it is a fraud for the purpose of palming off an old book as a new one upon the deluded public," (Quaritch, Letter, 9)

Quaritch would not have issued a new title-page for a publication less than twenty years old as this would have subjected the book in question to duty tax. However, in order to bind a folio of plates (particularly remaindered plates) a new title page must be printed in order to meet the legal obligations of the binder. B. Quaritch may have sold a quantity of remaindered, unbound Grammars to an American dealer who printed a new title page in the United States in order to avoid duty taxes.


6th EDITION: 1928. B. Quaritch, London. 112 plates. I have grouped these editions together because:

1. The E.C.B. does not record either edition in its catalogue;

and, 2. These editions may well be in-house remainders of the 1876-80 edition which received a new title page in order to be bound at these dates.


See my article in the *Journal of Design History*, 21 (2), 2008 “Originality and Jones’ *The Grammar of Ornament* of 1856”, *Journal of Design History*, 21, (2), 2008, pp. 143-153; Prof. Tim Putnam, ed., peer reviewed, for more recent and numerous editions:

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