Dynamics of
JUXTAPOSITION
in architecture

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Dedication

I wish to dedicate this book to all of those who are striving to create designs that are emotionally and intellectually stimulating and dynamic.
Keep on trying, keep on dreaming...
Acknowledgments

My deepest appreciation goes to professor Paul Laseau for the many hours he has unselfishly given in order to guide me along on the right direction - thank you for your insight and open-mindedness. Also, I'm thankful to Dr. Bruce Meyer, for his straightforward, honest, and cutting critiques for which he is undoubtedly famous - they helped my design immensely. I wish to also thank Philip Repp for sharing his knowledge in Art History - the discovery was exciting. And I cannot forget my fellow thesis students, thank you for your encouragement and for all those good times - best of luck to all of you.
Abstract

Juxtaposition in Design

When considering the formal aesthetics of spatial geometry, one usually associates a space with a simple, straightforward geometry. Conventional uniformity seems to be the dominant organizing impression, and the spaces created seem to lack diversity and energy, making the spaces uninteresting, overly simple, and all too predictable. I feel a more successful space is one that uses a form of complexity and contradiction in its arrangement and perception of spaces by creating a juxtaposition of form through the overlayering, or transparency, of receding spaces. Through this type of three-dimensional composition, I believe a more energetic and spatially stimulating environment is created, thus providing for spaces that are more alluring and thought-provoking. Needless to say, with this in mind, several questions arise, such as the reason why people are initially attracted to this type of energetic design. What is it about the juxtaposition of space that makes it so psychologically appealing? Are the spaces created better than those of a simple volumetric space, and are they appropriate for all building types and building users? Through the efforts of my thesis research and experimentation, hopefully I will be able to answer, or at least give some insight towards a few of the major questions pertaining to this design approach and, more importantly, being able to provide a basis for future design thought and implication.

- T.A.C.
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Introduction

What makes a space dynamic? Well, this is the first question I ask myself when I'm approaching a design problem. So often are spaces designed in a mundane and tedious way that they become uninteresting, unexciting and all too predictable. I like to be in a space that evokes excitement and dramatics - that creates a dynamic movement through space and that constantly "opens up" and creates new avenues for discovery. This type of "dynamics" is hard to come by and just as hard to design. That is the reason for this book: I want to find a guide, or vocabulary, that allows one the freedom to design these dynamic spaces while also allowing the freedom to experiment with human perception and movement.

Through my investigation, one element that I feel helps to create this dynamics is the use of juxtaposition. Just as a rock and a flower are juxtaposed to one another creating a contradiction and an energy between them, so can architectural space be juxtaposed to create that same feeling. Imagine, if you will, two geometric objects identical in shape and arrangement setting side by side. This composition can be said to be static, uninteresting, predictable. Now, if one object was slightly skewed and perhaps distorted, the composition would take on a totally new appearance. It would create a contradiction, a tension, a dynamics in composition and would undoubtedly become more interesting and appealing to the viewer. Thus, these objects can be said to be in a juxtaposition which creates a dynamics in space.

In order to be perfectly clear, I need to define juxtaposition in an architectural sense. That is to say, my definition should not be in the abstract, but in the concrete. It should be a working definition that can be applied in many design situations. Let me explain...
Definition

Juxtaposition :
1: The act of placing side by side.
2: Place together, with. 3: To contradict or oppose.

This dictionary definition of juxtaposition is quite vague. It only implies that it is a general relationship between two or more elements. I feel, on the other hand, that juxtaposition has a more specific definition, especially when it applies to architecture. In a two-dimensional composition, juxtaposition has implications of balance and proportion and is a means of accomplishing harmonial equilibrium. However, in a three-dimensional composition, there are specific divisions of juxtaposition that uniquely contribute to this balance and proportional relationship. In my analysis, I have defined juxtaposition into a series of eight pairs of functional differentials.
These differentials clarify the parameters of juxtaposition and illustrate the ways two or more elements can be juxtaposed while describing their resulting attributes. Yet, these differentials do not necessarily act independently, that is, many times they can be combined to create totally different effects. For example, when you combine symmetry, transparency and distortion, using those simple diagrams, you create a composition that is quite unique and contains even more characteristics like dynamics, complexity and depth. Thus, the real key to a successful "juxtaposed" composition is the manner in which these divisions are combined, and for my thesis, this dynamic spatial quality created by the mixed use of juxtaposition is what I want to explore.
Research

Juxtaposition is not a new term and I, by no means, am not trying to claim it as original. It has been a concept used considerably in past art and architectural movements and has been interpreted in a many number of ways. Artists for years had been experiencing with juxtaposition in both two-dimensional and three-dimensional compositions, and had been exploring new ideas for dynamic space. Take, for instance, the early-modernists who used this concept and interpreted it in such a way the art world has never seen (i.e. Cubism, Futurism, DeStijl, and Constructivism). In order to substantiate my thesis position, I will list a few of the many past examples that have been used in both art and architecture and will try to explain their successes.

The art world experimented with these combinations and interpreted juxtaposition in many different ways. The DeStijl and Constructivist movements used juxtaposition strictly as a technique to form harmonial balance in a two-dimensional composition. As shown in these diagrams inspired by Kasimir Malevich's paintings of early Constructivism, it is the proportional relationship between the elements that keep the composition balanced. The first drawing uses only one division, tension, as its ordering system and the change in value helps in maintaining this balance. The second drawing, however, uses a combination of divisions and creates a more complex composition - tension, disorder and dynamics. This overlayering and contradictory arrangement provides for a balanced juxtaposition.

In architecture, juxtaposition has also been interpreted many ways. As would apply in the three-dimensional sense, proportion and balance are also important elements to consider in composing juxtaposed space. Juxtaposition is used primarily as a tool of composition; however, there are other reasons for its application.
With the experiments at Bauhaus, the idea of mass was abandoned and substituted with the idea of plane, and the solid cube was thought more of as an empty box, intensifying its planar and geometric qualities. Spaces were created through the distribution of planes, and the physical movement through these spaces was vitally important. In order to accomplish such planar distribution, juxtaposition played an important role. Planes were juxtaposed one to the other, sometimes passively other times dynamically, and created spaces in between that excited the eye as it traveled through, intensifying the visual pleasure of individual episodes of a complex, planned obscurity. These original ideas were inspired by DeStijl fundamentalists, and later developed by the Constructivist and Bauhaus movements.

An example of this juxtaposition can be illustrated in Mies van der Rohe's project of 1923 for the Brick Country House and Theo van Doesburg's DeStijl painting "Black and White Composition", 1918. In these two examples, the experimentation and manipulation with planar geometry is obvious, both in the second and third dimensions. The juxtaposition of elements in both cases creates precise forms while creating volumes that are undefined and competitive. It is by the arrangement of these forms that make the decentralized and irregular composition successful.

Another form of complexity uses the more dynamic, tense and complex divisions of juxtaposition. In this project by Jennings & Stout Architects, a prominent circulation artery has been juxtaposed with the surrounding forms in order to create a dynamic and visually stimulating environment, in a manner similar to Moholy-Nagy's Bauhaus painting of 1922. These two examples use the dynamic qualities of juxtaposition as a tool of spatial complexity and the experience of moving through the architectural space is enlivened.
Moholy-Nagy experimented with juxtaposed forms or planes in many compositions and later developed these forms with depth and distortion, eventually creating sculpture to illustrate the "spatial" possibilities. His inspiration came from the Russian Constructivists who a few years earlier, like the DeStijl fundamentalists, believed that abstract art was the purer means of communication and illustrated this point in their simplified graphic designs.\textsuperscript{4}

Other artists used a method of composition similar to the overlapping planes of Moholy-Nagy but were adding a further development of complexity. These artists were interpreting these planes as transparent figures, rather than solid form.\textsuperscript{5} This transparency provided them with the ability of showing many images in only one plane, or in essence, the ability to create depth in the two-dimensional media. Again, this was inspired by the reinterpretation of the cube - plane vs. mass. The early Cubists experimented with this transparency and were successful in showing a simultaneous perception of meaning. Later, the Constructivists refined and distorted transparency into other dimensions.\textsuperscript{6}

Transparency, however, was not created by the Cubists; it was experimented with long before in an architectural sense by the use of serial vision. Comparing the Russian Constructivist compositions with the Renaissance compositions, Alexander Vesnin creates depth in his graphic by layering many transparent elements and juxtaposes them in a complex, disordered manner. This same transparency can occur in architecture, like in the sculpture galleries at the Vatican City. These spaces are layered in such a way that each form can be read individually and the space between becomes the important connecting element. The visual movement is the key response and transparency adds further complexity and dynamics to the space. Thus, I have found that the one differential that becomes most valuable in achieving the most complex
and dynamic juxtaposition is the relationship between solidity and transparency, for it is through transparency that the most spatial complexity can be achieved.

Well then, what exactly is the definition of transparency? Here again, I will refer to Webster's -

Transparency:

1: Having the property of transmitting light, so as to render bodies lying beyond completely visible, that can be seen through 2: easily understood or detected, obvious.

By the dictionary definition the quality or state of being transparent is a material condition, that is, a physical material which is pervious to light. Glass would be a good example. Yet, there are other interpretations of the word. One could determine an intellectual imperative - of an inherent demand for that which should be easily detected, or perhaps an attribute of personality can be determined - the absence of guile or dissimulation. Nevertheless, whatever definition is chosen, it is obvious that the word is richly loaded with the possibilities of both meaning and misunderstanding.

In addition to these accepted connotations, and as a condition to be discovered in a work of art, transparency has become involved with further levels of interpretation. As mentioned earlier, Cubists had used transparency in order to create a depth of richer meaning in their artwork and architects had used transparency as a means of serial vision and procession. These are two interpretations of the word and the general definition above would not apply to either one. What, then, would be a clearer definition? In his book, Language of Vision, Gyorgy Kepes gives a more precise explanation:
If one sees two or more figures overlapping one another, and each of them claims for itself the common overlapped part, then one is confronted with a contradiction of spatial dimensions. The figures are endowed with transparency: that is, they are able to interpenetrate without an optical destruction of each other. Transparency however implies more than an optical characteristic; it implies a broader spatial order. Transparency means a simultaneous perception of different spatial locations.

This description of transparency is quite distinct from any physical material quality of substance. In fact, by this definition, the transparent ceases to be a physical trait but rather an organizational trait. When one looks at the Vesnin drawing, the sense of transparent overlapping planes becomes more than a physical transparency; instead, it becomes a tool for multiple perception and the interpenetration of form. Thus, there exists two basic distinctions in the interpretation of transparency - an inherent quality of substance and an inherent quality of organization and perception.

Colin Rowe, in his book, *The Mathematics of the Ideal Villa*, described these two distinctions of transparency as the literal and phenomenal, and he illustrates the differences in two Post-Cubist paintings.

The first painting "La Sarraz", again by Moholy-Nagy, shows a collection of planer elements hovering in what appears to be a black outer space. In the contrasting painting "Three Faces" by Fernand Leger, there also seems to be a collection of elements, but these objects are flat and opaque and are aligned differently on the canvas compared to Moholy's planes. Leger's arrangement seems to evoke more depth because of his clarity of both positive and negative forms. Moholy's
arrangement, on the other hand, shows less depth and can be submitted to only one reading. Through Leger's flat planes, absence of volume and discreet superimposition, he leads the eye to experience an inexhaustible series of larger and smaller organizations within the whole. Thus, one can say Leger's picture has a phenomenal transparency through its quality of organization and structure of form, and Moholy's picture has a literal transparency through its application of material and light.¹⁰

But, in considering architectural rather than pictorial transparencies, confusion often arises. For, while painting can only imply the third dimension, architecture cannot deny it. Provided then, in architecture, literal transparency can become a material fact, while phenomenal transparency can become a characteristic of composition. The literal can be achieved with glass or other translucent surfaces, and the phenomenal can be achieved with planer and overlapping geometries. Either way, transparency can be achieved by a variety of methods.

A comparison to the literal can be observed in the workshop wing at the Bauhaus. Here, the literal material of glass is used as the primary source of transparency, but this is not the entire reason for its literal point. Rather, it is the way Gropius used glass that makes it literal. At Bauhaus, the glass permits vision to deeper spaces and permits a superimposition of reflected light, but the glass is interpreted as a physical plane and limits the perception of void. In a way, the arrangement only allows for a one sided reading, like in the Moholy painting. The illusion is confined. Transparency, then, is used only in a material or literal sense.

Almost contemporary with the Bauhaus, Le Corbusier's Villa Savoy might fairly be contrasted with it. In this example, Le Corbusier uses the geometric composition to aid in his transparency. Glass was used in both projects, but Le Corbusier would hardly seem to hold such a fascination for its literal quality. Rather, he uses glass to
represent depth and void while implying a series of spaces behind. In the Bauhaus building, the glass serves as an intercepting media; in Villa Savoy, the glass disappears. Sculptural elements are brought up from behind, hinting at spaces beyond, and the play of light and shadow help contribute to the obscure transparency. Thus, in this example, Le Corbusier was experimenting with the phenomenal transparency.\textsuperscript{11}

In conclusion, then, transparency can be used in many ways. It is a powerful tool in making juxtaposed compositions, both pictorially and architecturally, and allows for a more complex arrangement. Transparency creates depth and interpenetration of spaces and enhances the visual experience of moving through a composition. Whether it be literal or phenomenal, transparency adds a further refinement in juxtaposition.

With the definition of juxtaposition, and also that important part of juxtaposition - transparency, I can basically arrive at an operational design definition that I, and hopefully others, will be able to use in creating "dynamic" spaces. By looking at the spatial affects of juxtaposition, I feel that in a juxtaposed composition it is not the particular size or shape of the objects themselves that become the important aspect, but yet it is the relationship of the \textit{between} spaces - area between objects - that become the important aspect. For within these spaces, one experiences an energetic or dynamic stimulus through the kinetic atmosphere of the environment. Movement, either physically or visually, through the between spaces is the important spatial affect and it is the juxtaposition through transparency that makes it work.
An example of this dynamic "between" space is shown in this plan by Rob Quigley. The individual units in the composition are not really the prominent elements. It is the space between the units, the procession through the composition, that makes the project dramatic. Tension, disorder, complexity and distortion are the combining attributes that enhance this juxtaposition, and it is the arrangement of these individual units in the composition that in itself create movement and kinetics in the overall space. Thus, in regards to my thesis, the successful juxtaposition of elements in a composition is based on the relationship of spaces between elements, and the affects of tension, disorder, transparency, complexity, depth and distortion help in creating these "dynamic" spaces.

A tension in movement is the main key to an exciting composition. Just as the eye moves through a Cubist painting or around a Futurist sculpture, so must the same experience occur in an architectural space. Transparency in the "between spaces" adds a complexity to the movement by creating more depth, interpenetration, continuance, and possibilities for multi-interpretation; views are always changing. Thus in essence, transparency gives a fourth dimension to a composition - Time. This continuation of both time and space (transparency) enhances the experience of movement in an architectural environment.

In summation, then, "spatially stimulating environments", those that are energetic and dynamic, are spaces that have a collection of individual elements juxtaposed in such a way that the "between" spaces contain a movement of contradiction and tension, and have those complex qualities of juxtaposition - tension, disorder, complexity, asymmetry, depth, dynamics, distortion, and above all, transparency.
Experimentation

In order to test what I had researched, I have done a series of experimental charrettes looking at some of these different attributes of juxtaposition. I felt the only way I could illustrate the vocabulary effectively, was by jumping right in and applying the concept to a three-dimensional design problem. Hopefully, you will see a correlation.

Abstract Space

The first charrette was primarily set up to start me thinking in the third-dimension. It involved very little restrictions and was basically a form/spatial exercise. That is to say, I was free to develop forms (objects) in a simple rectangular format that would evoke a dynamic movement through space. Visual movement was the key. I wanted the eye to be carried dramatically through a series of spatial relationships which would hence create a desired dynamic - reflecting back at what I discovered in my research about "between spaces." Scale, color, and material were not important factors. Just pure form was the main issue. And to make things a little more simple, I ignored the floor and ceiling planes in this exercise so I could devote my emphasis on wall surface. In essence, this was abstract space - no function was applied. Altogether, I did a series of three experiments.
The first was quite simple. It involved the juxtaposition of forms which I thought were dynamic in their own right. Curved forms juxtaposed against angular, skewed forms brought out a tension which stimulated the eye and carried the viewer through the space. I tried placing these independent forms in such a way that the relationship between was the catalyst for the dynamics. Another attempt was to create penetrating forms that intersected other objects at peculiar angles and by tilting one object to imply movement not only forward but upward while also achieving a sense of enclosure. All of this together, I felt, worked successfully. I did create a space that had a dynamic movement, yet something was missing. A sense of scale was lost. This factor I tried to overcome in my next exercise.
In this next try, I placed objects within the space that implied this missing sense of scale. The tilted ladder, the ramp, and the intersecting beam overhead gave a scale reference. I also tried to add a layer of realism to the space by referencing structure and human activity (function). Nevertheless, the main point of this exercise was to experiment not only with the relationship of form but with space within space, and depth beyond space (transparency). From this perspective, I relied on the curved wall, the de-construction of the straight wall, and the vectored forms to imply dynamics.
The last exercise was an effort to concentrate on transparency. I, more or less, combined everything that I was working on previously into one example, but here I wanted to emphasize the transparent notion of receding spaces - the layered effect similar to the Cubist’s idea. Like before, I used vectored forms and intersecting forms to create tension, yet I layered them in such a way to hint at spaces beyond. You could say a feeling of anticipation was desired. Through this, a sense of movement was created by the play of light in the space and by the suggestion of the unexpected. Overall, the exercise was helpful, but looking back, I really needed to do a few more exercises on just this notion alone. Transparency is not easily achieved and needs to be looked at carefully. Nonetheless, the exercise was a beginning for my next charrette.
Functional Space

In this charrette, the program was slightly different. Instead of a rectangular format which already implies a movement in one direction, I decided to use a square format which implies no movement and is essentially a static form. This gave me the opportunity to truly test the concept of dynamic juxtaposition to create movement. From there, I applied a simple function. The space was to be a bath and was to contain all of those objects typically found in a bath: lavatory, water closet, bath tub/shower, storage, dressing area. Also, a scale was determined. The boundaries were to be a 22'-0" square with a 11'-0" height limitation. Access to the space could be taken on any side and fenestrations could be placed anywhere. Just like in the abstract charrette, the object was to create a dynamics through juxtaposition with the use of those ideals described in my definition. The exercise was to be in model form for which I did a series of four experiments.
The first attempt, like that of the first attempt in the abstract charrette, was to create a dynamics through disordered parts. I basically divided the program into five independent groups, and for each group I assigned a distinct form. The lavatory is the half-cylinder form in the center of the composition which is encircled by the other four functions. The storage form is the curved wall intersected by square shelving units; the bathtub is the rectangular form; the water closet is the tapered form and the undulating wall is a form separating the dressing area. Each sculptural form is placed in such a way as to act independently from each other, with movement happening between forms. Overall, the dynamics is generated through chaotic movement and contradicting forms.
In the second attempt, I tried to evoke a free and soft movement with the use of curved forms. I wanted to keep the composition more homogeneous, and tried not to over contradict one form with another. Two sweeping curved forms dominate this composition with the storage unit, bath tub, and water closed being consumed within them. The straight wall with the intersecting lavatory is the only contradictive element, yet it is not so much a contradiction but a generator (datum) for the curved forms. Nevertheless, the play of light and the dramatics of the curve help to create a stimulating environment.
In the next exercise, I wanted to use the Constructivist's idea of radiating geometries. Why you ask? Because radiating geometries imply a given movement. Through the use of tapered and circular forms, I feel I have succeeded in achieving this affect. As you can see, the shower unit implies a movement outward, with the lavatory, water closet and dressing area spinning out from it. This type of "explosive" composition is effective when trying to achieve a dynamic space.
In the previous exercises, I was really denying the boundaries of the square. I basically ignored the square and created an open, sculptural composition with no hard-cut edges resulting in a free and open movement. In this next exercise, however, I wanted to explore this same freedom, but also keep the square enclosure as much as I could. That is the reason for its boxed appearance. In this space, I manipulated the path of movement so as to maximize the intensity of approach. Entering takes place in a zigzag motion with the angled mirror opening up to all views in the space. The lavatory is radiated off this entry path and suggests a movement beyond the space. The water closet, a rectangular form, acts as a contradictive element intersecting the space giving a tension to the composition. The shower, then, generates from a curved line taken from the entry path. Altogether, the piece appears to be in a static and balanced state; however when viewed within the space, it appears to be in a fragmented and dynamic state. This is the reason why I feel that this exercise is the most successful, because while staying within the limits of the program, I still succeeded in creating a dynamic space through juxtaposition.
Complex Space

In this last charrette I wanted to experiment with a more complex program. My thought was to test juxtaposition in a restrictive format but still allow the opportunity for free expression. In other words, I wanted to create a realistic setting. Needless to say, this attempt proved to be more difficult.

The program I devised to be a basis for this charrette was a retail shop, that is, a clothing retail shop in a typical shopping mall. I saw this shop being an exclusive clothing store which offered everything from shirts and dresses to jewelry and shoes. The separate functions within the shop include: front display area, check-out counter, dressing rooms and storage areas. The limits to the space is an area of 12'-0" by 28'-0", a typical mall shop, and a maximum height of 20'-0" excluding structure. This allows enough room for a second floor. Mechanical systems would be provided from a central location in the center of the mall, as well as deliveries would be provided through a rear service corridor. The main goal was to create an environment that is visually exciting and dynamic that would hopefully attract people from the center of the mall. Of course, juxtaposition would be the key to the approach.

As a result, I did a series of four exercises, taking one particular differential that I described earlier and applying its full potential. Those extracted were dynamic, transparency, passive and disorder. From these, I did a series of plans and perspectives illustrating the dynamic effects each one portrayed, either in its fullest sense (dynamics), in its mildest sense (passive), in a transparent or disordered sense. The exercise proved to be challenging, but it opened my eyes to the many possibilities of juxtaposition. I will let the pictures tell the story.
The first attempt was dynamics. In this space I wanted to create an energetic feeling in its fullest sense. Like in the one Functional Space charrette, I tried to use the Constructivist’s idea of radiating geometries. In plan, the idea seemed to work great. Unfortunately, the dynamics in perspective were disappointing.
This time I wanted to concentrate on the transparent effects of dynamics. Here, I layered a serious of forms and spaces so that the view from the front of the store would intrigue the potential buyer and make him want to enter the store. Altered perspective and play of light were the major ideas I tried to manipulate. Overall, the result seemed to work well.
Passive

Could dynamics be created in a timid and passive manner? I think so; that is why I tried this exercise. In this space, a rhythm is created by the column placement, and only one element, the stair, contradicts the layout, establishing what I feel can be called a passive dynamics. The stair intersects the visual progression and stimulates the viewer.
In the last exercise, I worked with disordered parts and contradictory forms. The plan consisted of four independent, randomly placed forms which contradicted the angled wall and stair, and created those important between spaces which I felt contributed to dynamic spaces. A rhythm was also created by the use of pilasters on the side walls. The result was a disordered, dynamic space.

*Disorder*
Application

Looking back at the three charrettes and all the different exercises with which I experimented, I really needed to come to a point where I could adequately test the dynamics in a real project, with a real program requirement and with a real site restriction. This way I could see whether my definitions were applicable.

I wanted the project to be restricting in one sense, yet flexible in another. That is, I wanted the program to be open for new ideas. Whereas some projects can be very restricting (i.e. a hospital, a library, etc.), I wanted a program where I could be free to manipulate the dynamics of space without destroying its function. Also, I needed to choose a program that would be appropriate for dynamic interpretations - a mental hospital may not be a proper function for dynamic activity. Therefore, I felt a project with a multi-function program would be ideal. Thus, the reason for selecting the Minnetrista Cultural Center as my application project.

This program had a variety of spatial needs and these different functions created an opportunity for me to treat them as separate objects, similar to the idea of the last charrette. The program varied from very ordered, rigorous spaces to very free, unrestrictive spaces, and I arranged them in such a way as to appear as a collection of buildings, with the movement between containing the dynamics.

My program for the Cultural Center was taken from the existing Ball Brother's Foundation program, which is currently being constructed on Minnetrista Blvd. by the Ball Mansion. I took this original program and adapted it to what I felt would be a more appropriate program. I also sited the Center in a different location. Instead of Minnetrista Blvd., which seems to be in a remote and exclusive area, I opted to place the Center downtown. Even though the project was all hypothetical, it still gave me a base to test my thesis.
Program

Minnetrista Cultural Center
Muncie, Indiana

- Historical Exhibition Museum
  featuring historical artifacts from this area of Indiana including
  exhibits for regional industry and transportation
- Art Exhibition Museum
  displays a permanent art collection from the Ball family and provides
  for any temporary collections
- Lobby / Presentation Space
- Library / Archives
- Auditorium
- Learning Center
- Administrative Offices
- Artifact Storage
- Cafe / Gift Shop
- Muncie Visitor's Center
- Parking
- General storage & restroom facilities
- Outdoor Plaza
Concept

The main idea of organizing the site was quite simple. I wanted to emphasize the imagery of movement (transportation) by having a pedestrian ramp reach out towards the main intersection to draw the people to the complex. This over-stated gesture exaggerates the notion of dynamic movement and creates an energetic sculpture as a landmark to the site. From this ramp - the primary, formal entrance - is formed the major outdoor plaza which is slightly elevated in order to accommodate parking underneath. Rotating off this plaza is the main lobby/presentation space as the entrance to the Historical Exhibition Museum. The administrative offices are aligned closely on Walnut Street maintaining the urban fabric of downtown. This also becomes the datum from which everything is juxtaposed. The Art Exhibition Museum is skewed against the Historical Museum, adding a tension to the far end of the site. The Cafe / Gift Shop and Vistor's Center are separate objects in the complex and are scattered randomly, like dice on a playing board. Here again, movement between these different spaces is where I primarily concentrated my efforts, and it is in these places where juxtaposition takes on its dynamic qualities.
Process

The first step in designing this project took place in sketch form where I developed image sketches of what the appearance should be. I sketched a number of ideas until I found one suitable to the project. Distorted forms and skewed perspectives were used a lot in order to heighten the energetic level, and series perspectives were used to study the progression of movement to and through the site. Eventually, my sketchbook was full of ideas. I built rough study models - one of the entire site and several of partial sites. These helped immensely in evaluating the three-dimensional relationship. From there, I did two refined partial models and cleaned up my rough drawings. In the end, I presented four boards with plans, elevations, interior perspectives, and details and a final, mass model. Hopefully, you will see the progression of design and the dynamics of space in these illustrations...
Conclusion

Now for the most important part...what exactly have we learned? Well, basically the lesson is simple. Juxtaposition can add dynamics to a space through the use of the eight pairs of differentials I defined earlier, and of these I have found transparency to be the most affective. Through my experimentation, I tried to illustrate the variety of ways they can be applied, and through my application project I tried to test their validity. Yet, what other attributes have I found to be important? Movement and contradiction seem to have been significant characteristics, as well as composition and form. But, is there one single important attribute that gives us all of these feelings? No - all are very important and all are dependent on one another. The success of dynamics in a space is the manner in which you combine these attributes. Juxtaposition is a collection of all these and neither can be ignored. Dynamics can be heightened by the exaggeration and contradiction of one attribute to another. The user experiences dynamics through movement in a space and through the discovery of composition and form. In other words, juxtaposition is a design tool for spatial composition.
I have, by no means, covered all of the design opportunities. In fact, I have only discussed a very few. Experimentation in juxtaposition needs to continue since my investigation has only skinned the surface. There are a lot of other characteristics that can add to the dynamics of juxtaposition that at this point have not been discussed, such as material choice, texture, detailing and of course, color. I have just slightly begun to look at those factors. Elevation and perspective studies, as well as more model studies, need to be looked at further. Needless to say, there are other questions that arise and that need to be answered. For instance, does juxtaposition have its limits?...Does dynamic spaces always have to be chaotic spaces?...Are there any other important characteristics that are a part of juxtaposition that have been over-looked? Hopefully, an initiative will be taken to further explore these opportunities, because juxtaposition in architecture is an important design tool and cannot be ignored. But until then, keep observing dynamic space and enjoy its stimulant. Best of luck in discovering the possibilities...
Notes


Ibid. p.45.


6Rowe, p.160.

7Ibid.

8Gyorgy Kepes, Languages of Vision. (Chicago: 1944) p.77.

9Rowe, p.161.

10Ibid. p.166.

11Ibid.
Bibliography


Planes can act in the movement.

Curved planes can also act and elicit movement.

Interposition can come into play with the movement of different planes.

Planes play an important role in movement.

Juxtaposition does not always have to involve contradictory parts. Jux can occur in contrasting forms (i.e. Picasso & Matisse).

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