#### Part II: The West Dean Visitor Centre

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Figure 1: North facade viewed from entry path.

The West Dean Visitor Centre is a building which Alexander and his colleagues at The Center for Environmental Structure (C.E.S.) built between July 1994 and November 1995 for the Edward James Foundation. This Foundation is located at West Dean, just north of Chichester in West Sussex, England. It manages a large estate including extensive gardens, an agricultural school, and a College of Art. Because The Edward James Foundation and Alexander share certain values, including a sensitivity to local context and tradition and a strong interest in craft and creativity, this was a natural pairing of client and architect. C.E.S. was engaged with Alexander as Chief Architect and John Hewitt as Project Manager. In addition, students from The Prince of Wales's Institute of Architecture and from Portsmouth University were involved in the design and construction of the building.

Because of the synchronicity of ideals shared by C.E.S. and The Edward James Foundation, the West Dean Visitor Centre was a unique opportunity for Alexander to put his theories into practise. Alexander and C.E.S. have produced larger projects, most notably the Eishin Campus in Japan, but he feels this has been his most successful project in terms of *process*: that is, all aspects of the process were well coordinated and cooperated to produce a work of art. The aforementioned shared ideals were the essential

cornerstone of the process, proving to be a unique alternative to the production of most public buildings in the modern era that have compromised aspirations as a guiding force. Financial profit is often the driving force in our capitalist society, especially in public buildings, and this can seriously compromise the quality of a building in both aesthetic and functional terms.



Figure 2: Entry Path leading to Entry Porch.

At West Dean, profit was not an overriding motivation for any of the parties involved. In fact, many of the parties involved donated some amount of time or money toward the "...creation of a work of beauty and permanent value..."

[2] C.E.S. donated Alexander's design services estimated in the initial contract at L19,200 (although they also charged 16.5% fee for "traditional professional services" which seems higher then a typical fee); John Hewitt, as project manager, lowered his fee, donating an estimated L11,000; The Prince of Wales's Institute of Architecture covered Alexander's travel and living expenses while working on the project (these probably amounted to a hefty sum as Alexander coordinated the project from California and travels first class due to a back injury); in addition, the Institute provided student labour and tutor input "...in order to extend the quality of the work beyond what might be attained by a purely commercial fee basis..."
[3]; the Edward James Foundation provided some construction labour from its staff and helped students and tutors from the Institute with accommodations on site.



Figure 3: From the Entry looking into Foyer and out toward the rolling green hills.

These donations reveal an attitude to the project clearly beyond convention. To this author's mind, they speak of a moral intent: to not only build a functional and perhaps attractive building (even this humble objective is a rare achievement in recent history) but to actually produce something profound - a work of art with a life expectancy significantly longer then most modern buildings. For Alexander this attitude is a given. He has oriented his entire career toward the goal of making every building he produces something meaningful beyond financial gain or the transient benefit of personal acclaim. And because he seeks to influence a larger audience than those immediate users of a building, each building, and the process that creates it, is seen as an example and model of a different way of conceiving and procuring the built environment.



Figure 4: Looking into the Dining Hall from the Foyer.

There a number of key aspects to Alexander's process that are significant departures from conventional building practise; these were of major influence to this project and were written into the construction and management contracts.

# One Flowing Process

First, Alexander believes in the necessity of unifying the design and construction into one flowing process. In order to eliminate the disjointed communication and antagonism which is endemic to modern construction processes it is necessary to adopt a 'master-builder' model where one entity in this case C.E.S. - is responsible for both the creative siting and shaping of the building - its design - and for its material manifestation - its construction. The contract simply states that C.E.S. is to be employed "...as Management Contractor and General Contractor of record, for the purpose of building the Visitor's Centre at West Dean..."

[4] While many large construction companies are beginning to employ design/build arrangements, and there is also a growing small-scale grassroots design/build movement in some parts of the world, the situation at West Dean was unique in that a high-profile architect (award-winning and with multiple publishings) and a wealthy client would normally employ more conventional methods.



Figure 5: The Dining Hall looking back toward the Foyer.

One of the primary motivations for creating a process where a single entity is responsible for the procurement of the building is so that design and construction becomes more unified and allows for the immediate and correct changes to be made as the project evolves:

A further and essential part of the C.E.S. philosophy is that there are no precisely defined plans and specifications and that construction is a continuum of design. C.E.S. has the responsibility to interpret the emerging building and will have authority to make decisions and changes that impact on lesser aspects of design as it determines necessary, without written confirmation from the Employer, as long as these decisions do not increase the base price of the Project or affect major aspects of design. [5]

By carefully defining the 'major' and 'lesser' aspects of design and by providing cost safeguards for the client, C.E.S. was able to take a much greater control of the building process than is typically given to a sole architect or contractor. Initial plans were non-binding, aside from the siting of the building, it's volumetric envelope, 'visitor flow' and general room configuration, all of which are considered 'major aspects' of design. All other aspects of design are defined in the contract as 'lesser' and are expected to evolve as the building emerges:

...for example as the building and rooms begin to take shape, doorway sizes and locations, window sizes and locations, wall locations and wall lengths, cabinets, finishes, may have to be altered. These decisions can only be made on site, during construction, as the building is taking shape. [6]

Indeed, this is how the building was made. From initial stake-outs of the site - before any drawings were made - to full scale mock-ups of wall sections, ceiling panels, even tables and chairs, a rigourous process of integrated design and making was followed. This particular process was employed in order that the 'emerging whole' could be perceived and appropriately responded to, and so that the craftspeople involved could have the freedom to influence the building by adding their own touches as they felt appropriate. Evidence of this can be seen in the idiosyncratic nature of some of the flint/brick wall designs and in carved details on the furnishings.





Left figure 6: South facing windows and ceiling of Dining Hall Right figure 7: Dining at a table.

The ability of the craftsman to contribute directly in a creative manner was explicitly written into contracts:

...the Craftsman will spend some time over and beyond the call of duty, to make a few very nice details. The Craftsman will choose the time, location and nature of these details ...[7]

In giving craftsmen this amount of freedom, Alexander is going against the trend of most construction trades in contemporary building, which is to limit and almost totally negate any creativity on the part of workers. In typical modern building processes, all work to be done is prescribed in drawings done away from the site, well before what Alexander would consider a full

picture of what might be necessary is available. At West Dean, as in his other projects, Alexander has taken a significant step toward one of John Ruskin's dictums: that the craftsman engages his work on a creative level which is spiritually nourishing. The craftsman not only experiences a sense of accomplishment and contribution but also experiences some level of 'self-actualization' through the risky act of creative engagement with his work. He must reach out and connect with reality in a searching manner and be guided by his feelings and experience. These ideas were also set out in the contracts for each craftsman:

CRAFTSMAN'S GOAL. The ultimate purpose of this agreement is to secure the Craftsman's work under conditions which make the Craftsman's work a work of beauty and pride and self-respect, and in which the Craftsman leaves behind work he is proud of, and can cherish in the future. It is specifically understood that the Craftsman's goal is not only to be paid for his work, but that the beauty and satisfaction of the work itself provide part of the craftsman's reward. To this end, the Craftsman shall be treated as an artist who has some power and control over work as necessary to allow the creation of a beautiful and fitting thing within limits accepted by C.E.S. [8]



Figure 8: South Terrace facade, window of the Dining Hall

### Moneys:

Another key distinction in the West Dean process involved moneys. Alexander feels that in order to produce the best possible building there are two issues with regard to moneys which must be dealt with: the first regarding the elimination of the profit motive and second, with the smooth and efficient flow of moneys. At West Dean these issues were stated explicitly in the contract:

...this approach is designed to eliminate the profit motive of the general contractor which takes value, meaning and quality away from the building. By setting a fee for the management of the Project and maintaining open records of all transactions, the typical overbidding by the contractor to protect against unforeseen overruns, risks and provide markups on materials and subcontracted work are eliminated. In more typical Contractor-Employer arrangements any unused overbid money becomes windfall and additional profit for the contractor and does not benefit the building or the Employer. In the model laid out in this contract all available money is spent for the betterment of the building.

For Alexander the elimination of profit is very important to the making of profound works. He feels that a spiritual motive needs to be central, as we have noted, it has been in many of the great works of history. In an interview with the author Joel Garreau, Alexander states in straightforward terms his feelings about the profit motive:

Garreau: I have a very healthy regard for greed as a social motivator.

Alexander: Right. I think that's where you and I differ. I believe that motive will not produce what you are looking for [wholeness]...I suspect its fundamentally incompatible... But one extreme version is: The only way to produce life is - to be religiously inspired. That's definitely what happened in the Middle Ages for sure. It's what happened in Buddhist constructions in Japan and so on and so forth. We know that. People where trying to make something as a gift to God. One possibility is you can't get life unless that's the only thing your trying to do [10]

At West Dean, as in other projects [11], Alexander felt it necessary for the contract to explicitly eliminate issues that could arise as conflicting motivations. By protecting the client through the elimination of the profit motive for himself and C.E.S., Alexander was able to take greater control of the moneys as a tool for properly managing the project, thereby allowing more efficient and therefore more sensitive adaptations necessary as the building unfolded:

This method also provides the framework for efficiently dealing with changes which are a crucial and fundamental part of making a good building. In typical Employer-Contractor conditions of contract lead to an exorbitant surcharge disproportionate to the direct costs of the changes in addition, and prolongation and disruption costs all of which effectively provides the contractor a windfall profit. Even changes which reduce costs are typically charged as extras. In the method laid out here, design changes are not subject to additional surcharges, and are charged at their actual costs within the agreed base price for the project, except for Employer additions...[12]

Moneys dedicated for the construction of the building were turned over to C.E.S. in a staggered manner, at which point C.E.S. assumed responsibility for their management. As noted, design/build methodologies, while not the dominant process, are not unusual in contemporary building practises. What is unusual in this project was the combination of this methodology and the elimination of the profit motive. By forming an individual or group with a high degree of control but who's primary motive cannot be the acquisition of wealth, an attitude and process exists which lends a greater chance of producing a profound work.



Figure 9: South Facade and terrace.

Such a relatively small building with a highly sympathetic client contributed greatly to what Alexander feels is a representation of his most successful building project to date, in terms of the process. This is not to say that it was not a difficult project, and indeed, correspondence between the parties involved show that there was a continuous struggle over issues of control and monies and timelines. In the end though, both Alexander and the Edward James Foundation were satisfied by the results. In financial terms, The

Edward James Foundation was returned L12,252.16 in unused monies. The building cost L857 per square meter. [13]

#### **Student Involvement:**

Another factor that contributed significantly to the betterment of the building, and that was a departure from conventional building practices, was the involvement of students in the design and construction of the building. Initially, students from The Prince of Wales's Institute of Architecture were involved. This was a period in the Institute's history which could be called the 'heroic years', when many of the Prince's initial ideals for the Institute were being tested in practise. Alexander was a member of the Institute's founding academic board and had influenced the development of the Institute's hands-on craft and fine art orientation. For Alexander and for the Institute, West Dean represented a chance to explore an alternative method of teaching architecture: teaching method based on actual 'making'. This approach is directly at odds with the established orthodoxy of most schools of architecture where theoretical understanding of architecture is the rule. This is an abstract way of learning, where drawings and words attempt to replace the actual engagement with materials and with the process of conceiving and constructing a meaningful building. The involvement of Institute students at West Dean was seen as a way of approaching architecture with an almost opposing strategy. From the material stuff that is the building, and the sensitive response to existing structure, through the 'birthing' process, the evolution and gradual transformation of space and materials, and finally to the careful refinement of details, students were engaged and learning about materials and the various processes undertaken to shape these materials as well as how these processes play such a fundamental role in shaping the design.



Figure 10: Looking back into the Dining Hall toward a window of the Gallery

This sort of understanding, and the level of beauty which results from following this understanding, is virtually impossible following contemporary building practises, as we have already discussed. It follows, then, that the education of architects must engender this sort of engagement of building processes and materials. Theoretical knowledge falls significantly short of providing this sort of engagement. Reality becomes what you want it to become and is bent to serve whatever conceptual baggage one brings to the design table. In other words, the conception of the building - an image in the mind of a designer - proceeds the actual needs of building. Perhaps not the program, which can be defined somewhat before design begins or as design evolves, but the way in which materials and processes and the subtle specifics of a site influence the design can only be approximated when one is not actually immersed in these issues by thoroughly engaging them on the site, as the building is being built.



Figure 11: Looking into the Gallery from the Dining Hall.

Graduate students at the Institute were involved in early design phases - building a 1/16th inch topographic model and checking Alexander's initial sketches, on the site and in model form. Larger scale paper models were made to begin investigating the shape of interior spaces and details. Each student was then assigned a specific aspect of the building to develop.

As soon as we have a developed physical picture of the building as a whole, I will ask the ten of you, individually, to take responsibility for various detailed aspects. I will do this by trying to find out what interests and experience each of you has, and then trying to marry this with the tasks which are in hand, so there is a good fit between your ability/interest and your task. [14]

These included 'windows/doors, roof tiles, floor tiles/timber floor, ceiling, brickwork flint, ring beam, furniture, ticket counter, interior panels. Students began work on these details but unfortunately politics interfered and most of the students were unable to follow through with their work, instead being redirected to other studies as the Institute shifted its focus toward more academic studies. Some of the student's work however did find its way into the building such as Susan's plaster ceiling rosettes. (See figure 6 above) Unfortunately, the Institute began moving in a more academic and less project oriented direction and the graduate students were unable to continue their involvement on the project. [15] This despite detailed schedules made up by C.E.S.. A list of 'Student tasks' was prepared:

Form and pour all concrete bars in brickwork, Plaster panels at wainscot level, Tilework and frieze in lobby, Lay tile floor with fleurs-de-lys tile, Herringbone panels in brickwork, Brick cornice and dentils, Lay and form arched lintels, Wood mortising in heavy timber connections in the roof frame, Making rosettes for plaster ceiling, Lay exterior garden walls, with concrete cap, Cast ornaments for garden walls, Make garden gate for entrance, Design and fabricate exterior lights, Lay roof tile with concentration on old Sussex tile work, Find field flints and lay up field flint portions of wall, Design and fabricate glass exhibition cases, Mockup cardboard and plywood furniture for size and design, Cast and lay terrace paving on south side of building, Build interior dining room wall with arches and alcoves, prepare and mill timber from West Dean estate, Apprentice to plaster ceiling manufacturer, Manufacture roof trusses in heavy timber, Apprentice to window manufacturer, with special emphasis on curved glazing bar design and execution, Cast, grind and lay special design terrazzo paving stones, Design and develop ceiling of lobby with new ornamental detail, Main doors, patio doors, ticket doors, Ticket counter, Serving counter, Design, milling, fabrication and laying wood floors: probably using estate elm. [16]

This list gives a sense of not only the commitment to the education of students that Alexander and C.E.S. intended, but also illustrates the level of engagement that the students would have been exposed to. While many of the tasks would have involved a certain amount of straightforward labour, there is a clear desire to engage the students in creative work that would noticeably enhance the character of the building. This would be a reciprocal relationship in which the students would gain valuable experience in construction and the building would gain in quality. Due to the elimination of profit motive, there was no financial motivation on Alexander's part to involve students - it was simply his desire to make the best possible building and continue his role as an educator. This relationship has much in common with traditional master/apprentice models from traditional cultures.



Figure 12: Looking from the Dining Hall into the Foyer.

#### Innovative Materials:

Another unique feature in the approach taken to West Dean by C.E.S. concerned the use of unusual and innovative building materials. Since early in his career Alexander has been interested in and experimented with a variety of alternative building materials and techniques. Concrete, in particular, has emerged as a favorite building material. Early experiments in the 1970's involved the development of lightweight concrete shell structures and were most fully realised in the Mexicali project. [17] In his analysis of Alexander's work, Grabow summarizes how this interest in concrete developed as the outgrowth of a search...

for a construction process which lends itself to user-design, hence uniqueness and variety (i.e. non-modularized and non-prefabricated); which is based on long-term, incremental, piecemeal growth (i.e. not instantaneous or large-scale); which is dynamic, more like sculpture, and permits gradual stiffening and forming; which permits the engineering to be optimized and is therefore efficient and relatively inexpensive; and finally, which maintains continuity between design and construction (in fact, which permits them to occur as a single activity). [18]

At West Dean, concrete was used in both block and poured in place applications, and as both a structural element and an aesthetic device on the facades. This latter application caused a bit of controversy because the building was conceived as fitting harmoniously into its sensitive context -

which is made largely of traditional buildings of brick and flint, a locally native stone. This conception was held not only by Alexander and The Edward James Foundation but also by local regulatory bodies. How this might best be achieved however was a point of contention which required Alexander to explain his intentions:

The use of concrete banding...in the brick and flint walls of the exterior is carefully thought out, and was arrived at by a process of experiment and reasoning where colour, texture and light were held paramount. Originally, when we began the first experiments of brick walls, carried out on the site, to determine mortar colour, brick size, brick colour, and the relation to flint, I noticed that the first brick walls, though beginning to be beautiful, had a quality which seemed too "pink" for the site. This was not surprising, since the original buildings on the site are much greyer -- many of them being entirely made of flint, and napped flint at that. Flint however, as a major structural material, seemed too archaic, too expensive, and unrealistic, except as a material used in minor panels and bands. I asked myself therefore, what ways might be open for introducing a greater proportion of grey, to soften the walls, and make them more suitable to the landscape...I began to wonder if a use of small pieces of roughly shuttered concrete work, might be combined with the brick...In doing this, I was following the medieval tradition, in which brick, flint, tile, clunch, limestone were used in a much rougher way than we would consider today...[19]



Figure 13: Local West Dean vernacular.

Concrete was also used as an innovative structural element in the form of a 'ring beam' which circumscribed the perimeter of the main building mass, acting as a rigid band allowing greater flexibility in interior wall divisions by acting against lateral forces and transferring these forces to exterior walls. So

while clearly a building which fits in with its vernacular neighbors (see figure 13 above), the West Dean Visitor's Centre achieves this harmonious relationship not by blindly mimicking historical forms and materials, but by reinterpreting them using today's advances in building engineering. This goal of creating a harmonious feeling building, one which contributes to the existing fabric by strengthening the 'wholeness' of the place, is a difficult one to quantitatively judge. This author, however, overheard numerous comments by visitors to the building to the effect that the building was well liked, appreciated and even admired.

### Geometry:

We will now turn to an examination of the geometry of The West Dean Visitor's Centre as a method of illustrating Alexander's "Fifteen Fundamental Properties". For each of the properties, Alexander's definition will be provided and examples given from the building:

#### Levels of Scale:

...a beautiful range of sizes...a series of well-marked levels, with definite jumps between them...big centers, middle-sized center, small centers - and very small centers...To intensify a given center, we need to make another center perhaps 1/2 or 1/4 of the size of the first. If the smaller one is less then 1/10 of the first one it is less likely to help it in its intensity. [20]



Figure 14: Largest 'center' is whole building; next level down is roof mass and facade, each about 1/2 whole.



Figure 15: Roof mass divided into area under ridge, approximately 3/5 and area of hips, approximately 1/5 each, somewhat weak. Facade divided into right hand portion, approximately 3/5 and projecting entry porch, approximately 1/5 and left hand portion, approximately 1/5.

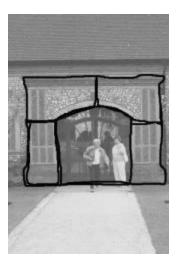


Figure 16: Projecting entry porch divided into arched doors, approximately 1/2 and areas to sides and top, approximately 1/8 each.

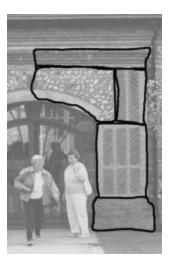


Figure 17: Right side of entry porch divided into brick base, approximately 1/5; lower and middle panels of brick and stone, approximately 1/2; upper panels of brick stone and flint, approximately 2/5; brick cornice, approximately 1/7.

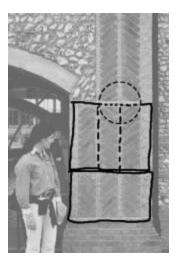


Figure 18: Panels divided into upper, approximately 2/3 and lower, approximately 1/3; upper panels divided into three, approximately 1/3 each. Note also interlocking 'center' created by cross of stones and diagonal bricks.

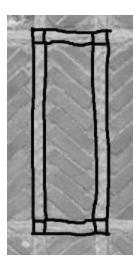


Figure 19: Middle panel of brick and stone divided into brick area only, approximately 3/5 and areas of stone around brick, approximately 1/6 each side.

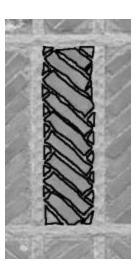


Figure 20: Brick area divided into individual bricks, approximately 1/10 each and triangular areas of mortar, approximately 1/8 size of brick.

# **Strong Centers:**

...general role of centers as the key elements of all wholeness...I leave it in the list...to concentrate on the strength of these centers...one principal center, the center of the whole composition...the most important place. [21]



Figure 21: Within the overall building 'center', the entry porch is the strongest 'center', achieved in large part by the darkness of the actual doors contrasted with the surrounding mass of the porch (see <u>Contrast</u> below).

## Boundaries:

...focuses attention on the center...forming a field of force...unites the center which is being bounded with the world beyond the boundary...both unites and separates...of same order of magnitude as the center which is being bounded. [22]

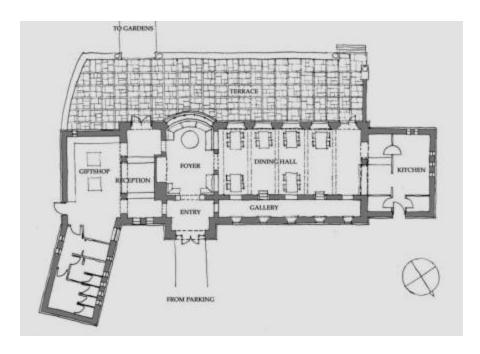


Figure 22: Floor plan of The West Dean Visitor's Centre. [23]

In general the thickness of the walls creates a strong boundary, a sense of enclosure. Also, the Foyer, Gallery and Kitchen bound the Dining Hall very strongly on three sides, while Terrace and distant view bound the fourth side.

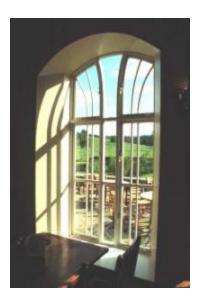


Figure 23: By making spaces in the thickness of the walls, the boundary of the wall unites inside and outside. See also <u>Deep Interlock and Ambiguity</u> below.

# <u>Alternating Repetition</u>:

...a very special kind of repetition...where the rhythm of the centers that repeat is underlined and intensified, by an alternating rhythm interlocked with the first and where a second system of centers also repeats, in parallel...a kind of counterpoint or opposing beat. [24]



Figure 24: The five great windows (A) of the dining room alternating with space between (B).

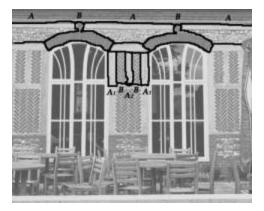


Figure 25: At a slightly finer scale, upper section of flint and concrete band (A) just below brick cornice alternates with brick arch and tile 'key' (B). Also in middle panel, vertical concrete bands (A1 and A2) alternate with panels of diagonal bricks (B). Also, the diagonal bricks alternate with one another.



Figure 26: Alternation between brick and flint and between bricks and mortar.



Figure 27: Internally the alternation of window and wall is repeated but with an entirely different character. Here, each window is set in from the wall, is filled with light, and is strongly set off by the relative darkness of the wall section adjacent. (See Contrast below.) This system is reinforced by the tables in front of each window and by light fixtures marking each wall section, all 'centers' reinforcing the larger 'centers'.

### **Positive Space**:

...space swells outward, is substantial in itself, is never left over from an adjacent shape...like ripening corn, each kernel swelling until it meets the others, each one having its own positive shape caused by its growth as a cell from the inside. [25]

This property is fulfilled by the careful placement of the building amid existing walls, trees and the River Lavant. The space to the south-west holds the patio and lawn - defined by existing and new walls, existing, mature trees, new hedges and new paths. To the south-east a plant display area is defined by a large existing tree and the River Lavant.





Left figure 28: Looking from the Foyer, through the Entry to the path.

Right figure 29: From the Entry doors toward the gate.

To the north-west, service areas are enclosed in small, triangular shaped areas where the building meets tall existing walls at askew angles - very strongly defined and appropriate for service areas. To the north-east, the entry area is defined by tall existing walls to the west, new, lower walls (see images above) and new plantings and by the bathroom wing (see plan - figure 22 above):

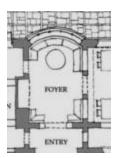
For instance the long curving seat made of flint and block and poured concrete...gently organizes space, so that the garden, and the gardener, feel inspired for things to grow...the effect was to create positive space between the entrance gate and the main entrance of the building. [26]

Note also <u>Positive Space</u> in plan, where each room is complete and well contained, strong 'centers'. All in all, the entire building is made of positive space with no piercing projections or acute angles.

#### Good Shape:

...the most gorgeous, beautiful, powerful shapes...forceful shapes...made up from multiple coherent centers...built up from the simplest elementary figures... 1. High degree of internal symmetries...

2. Bilateral symmetry... 3. A well-marked center... 4, The spaces it creates next to it, are also positive... 5. It is very strongly distinct from what surrounds it... 6. It is relatively compact... 7. It has closure, a feeling of being closed and complete. [27]



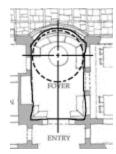


Figure 30: Plan of the Foyer with its Good Shape concentrated primarily on the seating area.

The foyer is a good example of <u>Good Shape</u>, in particular the seating area at the curved window, the strongest 'center' marked by a round table. The room is strongly defined by its thick walls and symmetry along long axis, yet the gently curved window adds a subtle beauty, a swelling shape that reinforces the sitting area. See figure 3 above.



Figure 31: The <u>Good Shape</u> of the sitting area.

### **Local Symmetries:**

...interlocking and overlapping symmetries...Living things, though often symmetrical, rarely have perfect symmetry...a large symmetry of the neoclassicist type rarely contributes to the life of a thing...because in any complex whole in the world there are nearly always complex, asymmetrical forces at work - matters of location, and context, and function - which require that symmetry be broken...a symmetry is used to establish an elementary center...local symmetry

establishes a symmetry between two small centers, to create a larger center. [28]



Figure 32: <u>Local Symmetry</u> in the windows of the bathroom wing. The overall facade composition is not symmetrical, instead subservient to needs of interior spaces, but each window is strongly symmetrical through brick boundary and cement header. Note also <u>Alternating Repetition</u> between windows and flint/brick and between bricks and flint on each side of each window.

# **Deep Interlock and Ambiguity:**

...centers are "hooked" into their surroundings...difficult to disentangle the center from its surroundings...more deeply unified...sometimes literally...other times, a similar unification is accomplished through the creation of an ambiguous zone, which belongs both to the center and to its surroundings, again making it difficult to disentangle the two. [29]



Figure 33: Window in the Gallery. Although technically interior space, the area of window is so light filled as to create an interlock with the outside. See also figure 7 above.



Figure 34: A corner of the building. Interlock of brick and flint throughout the building.

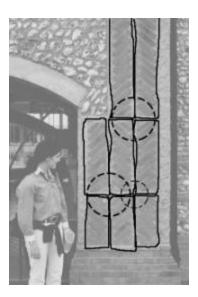


Figure 35: Nice interlock on entry porch facade where diagonal bricks form a 'center' where their respective panels meet - marked with dashed circle above. These areas are part of this 'center' and part of the 'center' of each rectangular panel.



Figure 36: Lack of <u>Deep Interlock</u> on south facade where great windows meet curved window. The respective systems start and stop abruptly and there is little interlock. The interlocked brick and flint help a little but seems weak relative to the size of the adjacent 'centers', and it does not engage the brick and concrete panel system to the right of the Dining Hall window (at left).

Also lack of interlock between inside and outside, aside from deep window sills. It would be helpful to have covered, exterior space, connected to both inside and outside.

#### Contrast:

Life cannot occur without differentiation. Unity can only be created from distinctness...Black-white contrast and dark-light contrast are the most common...Empty-full, solid-void, busy-silent, red-green, blue-yellow...high-low, soft-hard, rough-smooth...true opposites, which essentially annihilate each other when they are superimposed. [30]

Most dramatic example of <u>Contrast</u> can be seen in the way the light filled great windows of the dining hall contrast with the dark spaces between them. (see figures 5 and 27 above) On the exterior these same windows - and all the divided windows in the building - display <u>Contrast</u> in the white mullions playing off the darkness of the glass. (see figure 8 above)

Also dramatic is the contrast between the massive, simple roof shape and the richly complex facade treatment. (see figure 1 above)

There is also <u>Contrast</u> in the nature of two adjacent spaces: the larger, open, high-ceilinged Dining Hall and the relatively more enclosed, smaller Gallery:



Figure 37: Dining Hall, Gallery is to the right.



Figure 38: Gallery, raised 4 steps above Dining Hall, which is to the left.

# **Gradients**:

...a certain softness...Qualities vary, slowly, subtly, gradually, across the extent of each thing...One quality changes slowly across space, and becomes another...Shape, line, size, spacing, all vary gradually, not suddenly, in the progression across the thing....graded fields of variation, often moving from the center to the boundary, or from the boundary to the center...an organization of smaller centers creates gradients which "point to" some new and larger virtual center [31]

There is a general lack of profound gradients in the building. Weak gradients occur at the ceiling of the Gift Shop, where there is a progression from heavy timbers to medium timbers to smooth ceiling:



Figure 39: Gradients in the ceiling structure of the Giftshop.

# Roughness:

...a certain ease...subtle variation...some loose and makeshift composition...superficially inaccurate...is more precise because it comes from a much more careful guarding of the essential centers...a spirit of childish abandon...egolessness...does not seek to superimpose an arbitrary order...instead lets the larger order be relaxed, modified according to the demands and constraints which happen locally in different parts of the design. [32]

Although The West Dean Visitors Centre displays a roughness in character due to the materials and hand made quality of many aspects, this is not what Alexander means with this property.

...we probably attribute this charm to the fact that...we can see, in the roughness, the trace of a human hand, and know therefore that it is personal, full of human error, ...I am sure this interpretation is fallacious, and has entirely the wrong emphasis. [33]

A more accurate example might be the way the facade is treated where the great windows of the dining hall meet the curved window. (see figure 36 above). Here the strong order established between the great windows is largely abandoned, creating an odd and unresolved configuration, as noted in <a href="Deep Interlock and Ambiguity">Deep Interlock and Ambiguity</a> above. There is also roughness in the

placement of the brick chevrons above the rear entry/exit. They help reinforce the 'centers' of the space but do so very loosely, clearly not equally spaced. In most contemporary buildings this would be considered unacceptable construction undoubtedly, but here it is valued:



Figure 40: The Entry/Exit to the grounds, on the north side of the building.

#### **Echoes:**

...a deep underlying similarity - a family resemblance...depends on angles, and families of angles...the various smaller elements and centers, from which the larger centers are made, are all members of the same family, they contain echoes of one another, there are deep internal similarities between them which tie them together...[34]

The most obvious is the arched doors and windows and arches (see figures 2, 3, 7, 8, 11, 12, 28, 33, 40 above), all of a family, all roughly the same aspect ratio. Similar shape in plan shape of bowed window (see figure 30 above).

Possible deeper unifying Echo: an extended rectangle.



Figure 41: A series of rectangular centers on the facade.



Figure 42: More rectangular centers on the Entry porch.

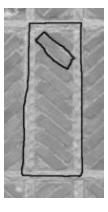


Figure 43: More rectangles.

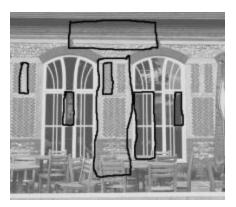


Figure 44: Rectangles on the south facade.

See also plan (figure 22 above), where shapes of many rooms are extended rectangles, especially the Dining Hall, which is further divided into smaller rectangles by bays in ceiling (see figure 6 above).

#### The Void:

...at the heart a void...infinite depth - surrounded by, and contrasting with the clutter of the stuff and fabric all around it...the quiet that draws the centers energy to itself, gives it the basis of its strength... [35]

<u>The Void</u> is apparent in the view of roof from outside, with a large expanse of tiles, set off against business of facade (see figures 1 and 9 above). The dining room has a tiny touch of <u>The Void</u> by being a significantly larger space then those adjacent (see plan and figures 5 and 37 above). The extended view from entry to rolling green meadows (see figure 3 above) offers some of <u>The Void</u>. In the foreground view of the empty lawn off the south facing terrace: the terrace is full of chairs and people and the expanse of lawn, down a few steps, almost feels like a body of water or the sea, a little touch of <u>The Void</u>. (see also figure 9 above)



Figure 45: Lawn off the Terrace.

# **Simplicity and Inner Calm:**

...a geometrical simplicity and purity... a certain slowness, majesty, quietness...when everything unnecessary is removed...simplicity of heart...[36]

The overall building massing contributes to <u>Simplicity and Inner Calm</u>. The massive roof has a simple and calming shape. Under the roof there is a simple arrangement of volumes: a few rectangles in plan with primacy given to the orientation of view, and for solar access. The building volumes all contribute to making positive space. There are low walls with simple, broad caps, enclosing space. The interior walls of smooth, light plaster, with very little ornament aside from some panels of tiles. Even the seemingly unique and complex curved window mullions have a graceful simplicity. The lawn area south of terrace is a simple space.





Left figure 46: Simplicity and Inner Calm in a view from Gift Shop to River Lavant and an old bridge. Right figure 47: Looking from the Gallery through the Foyer.

Lack of <u>Simplicity and Inner Calm</u>: Certain areas of the facade where numerous materials converge, sometimes conflict and seem overwhelming:



Figure 48: Too complex, too much unresolved to be calm.

### Not-Separateness:

...We experience a living whole as being at one with the world, and not separate from it - according to its degree of wholeness...so simple, so harmonious, it melts into its surroundings humbly, connects with the surroundings, is indistinguishable from the surroundings...without

giving up its character or personality...perhaps the most important property of all...you cannot tell where one ends and the next begins, and you do not want to be able to...no abruptness, no sharpness...[37]

To a large degree this building feels a part of its setting. It does fit in, in a mostly quiet way and doesn't make a extravagant effort to be noticed. <u>Echoes</u> of local materials and forms helps (see figure 13 above). Positive space around building helps. Certain parts of the facade hinder <u>Not-Separateness</u> by being a little too active, perhaps trying a little too hard. Terrace does extend with steps nicely onto lawn; view from reception connects out into landscape (see figure 3 above). Not-Separateness most helpful at the great windows of the Dining Hall, where the connection is so profound. (see figures 7 and 27 above)

- [1] Alexander related these sentiments directly to this author during an interview in March of 1998 in Chichester, England.
- [2] <u>First Contract for West Dean Visitors Center</u> (sic) dated 7th February 1994. All documents related to the West Dean Visitor Centre in this essay were obtained by permission from John Hewitt's archives, unless otherwise noted.
- [3] Ibid.
- [4] <u>Management Agreement for the Construction of West Dean Gardens Visitors' Centre</u> dated August 1994 and signed by Alexander and Simon Ward, representative of The Edward James Foundation.
- [5] Ibid. Article 5.
- [6] Ibid.
- [7] <u>Sub contract Agreement for the Construction of West Dean Gardens Visitor's Centre.</u> <u>Craftsman Agreement for 'Demolition'</u>, (undated) Article 8, p. 3.
- [8] Ibid. Article 5, p. 3.
- [9] Management Agreement... Article 4, p. 3.
- [10] Garreau. J. <u>Edge City</u> p. 338.
- [11] For an example of a very similar contract by Alexander and C.E.S. see Alexander, et al. The Mary Rose Museum (1995) Oxford University Press: Oxford, England and New York.
- [12] Management Agreement ... Article 4, p. 3.
- [13] CONSTRUCTION ACCOUNT: FINAL ACCOUNT and SUMMARY OF CONSTRUCTION COST dated October 12 1996.
- Unpublished letter from Alexander 'To the students of the graduate class,' dated January 12, 1994.
- [15] Two students from Portsmouth University however, were able to step in as apprentices during the actual construction of the building.
- [16] Unpublished document, dated June 2, 1994.
- [17] The Mexicali project involved the building of low-income housing with user participation and the combination of concrete block/ poured in place concrete shell construction. This project is fully documented in Alexander, Davis, et al, <u>The Production of Houses</u> (1982) Oxford University Press: New York.
- [18] Grabow, S. pp. 162-63.
- [19] Unpublished document by Alexander, C. <u>Two Aspects of the West Dean Visitor's Centre</u> dated June 3, 1994
- [20] Alexander, C. The Nature of Order Book 1, Chapter 5, pp. 3-8.
- [21] Ibid. pp. 9-15.
- [22] Ibid. pp. 16-22.
- [23] This plan drawn by the author based on original construction documents and incorporating changes made during construction.
- [24] Ibid. pp. 23-30.
- [25] Ibid. pp. 31-36
- [26] Ibid. Book 3, Chapter 23, Part 6, p. 204.
- [27] Ibid. Book 1, Chapter 5, pp. 37-43.

- [28] Ibid. pp. 44-52.
- [29] Ibid. pp. 53-57.
- [30] Ibid. pp. 58-62.
- [31] Ibid. pp. 63-67.
- [32] Ibid. pp. 68-75
- [33] Ibid. p. 68.
- [34] Ibid. pp. 76-79.
- [35] Ibid. pp. 80-83.
- [36] Ibid. pp. 84-87.
- [37] Ibid. pp. 88-93.