Keynote Address by Christopher Alexander
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(rough transcription, not yet edited)

(various announcements by John Norquist)
(intro to Philadelphia, preview of CNU XV by Sam Sherman)
(intro of Hank Dittmar by John Norquist)

Introduction by Hank Dittmar: (starts at 16:10)
Thank you, John. John is always very kind in his introductions; the membership increase that he speaks about really was all his doing, of course. Good morning, thank you all for getting up this morning for what promises to be a very stimulating day in Providence. This morning, I have the distinct honor of inaugurating, with Andres Duany on Sunday, the first presentation of the Congress for the New Urbanism's Athena awards. The medal itself, designed and stamped in the matter of an ancient coin, is intended to be a timeless commemoration of the importance of a set of key individuals to our movement. This is an image of it; made by a 90-year-old Italian sculptor found by Andres Duany, the medal depicts Athena on one side and an owl on the other side. These new awards are intended to recognize the pioneers of our movement, those who opened the door through which the founders and the designers of the charter for the New Urbanism walked. Athena award winners -- and there will be a fixed number of them over the next few years -- are the individuals who first broke the stranglehold that ideological modernism had on architecture and planning thinking. They are the people who laid the intellectual ground work for more participatory, integrated approach to the city and to the public realm. They are not necessarily the New Urbanists, and indeed most of them would still not call themselves the New Urbanists. Instead, the recipients of the Athena medal are the advance troops; who laid down the first critique, provided the theoretical underpinnings, or created the perceptual space that allowed the reform movement called the New Urbanism to grow. They are not, therefore, responsible for our mistakes or our successes. But without the Athena medalists, our movement might not have emerged. And in this moment of growth for the CNU, this moment when a next generation is emerging to follow and challenge the founders, it is important to remember and recognize upon whose shoulders we all stand and to celebrate their work to date and the work they continue to do. For these people still challenge us to do better.

It is a great privilege today to have the opportunity to say some words about the first Athena medalist, Christopher Alexander. Because he has not only been a great influence on New Urbanism, but has much impact on my own thinking

over the past twenty-five years. I discovered the *Pattern Language* as a graduate student in 1979 as I was trying to find my place somewhere in between an object-oriented architecture school and a regulation-obsessed planning school. I'd resolved, in a school that didn't recognize it as an area of study, to focus on urban design. And as someone who had lived in Chicago throughout the 60s and 70s, had been exposed to the failings of urban renewal (which we called at the time urban removal), the ways that freeways were used to design and segregate, and the powerfully bad impact that high-rise public housing had on communities. In short, I was primed. Like most people who came up in the 1970's, I'd been transformed by the environmental movement, and by the ideas of ecology and ecosystems. And though I found doses of Le Corbusier strangely invigorating, somehow, I doubted the machine analogy and had been taught by people like Rachel Carson to disbelieve in the notion that technology could save us. Above all, I was experiencing profound moments of cognitive dissonance, reading these tremendously stirring calls to battle by urban reformers and modernists and finding the built product unsettling and infinitely less harmonious or uncomfortable than the supposedly class-ridden neighborhoods of Chicago and Evanston where I went to university, or the classrooms designed by Cass Gilbert at the University of Texas where I was imbibing these heady thoughts of the new order in the future.

And so, when I chanced on the Pattern Language, it was a transformative moment, causing me to drop my nascent thesis project and to try and undertake a project to design a whole systems approach to public engagement and community participation, that embodied the Pattern Language. The intellectual debt I owe to Christopher Alexander is profound, and to him I --and I think we -- owe three core ideas that have permeated my own work ever since.
The first is his statement that the city is not a tree; it is a complexly layered system, and human systems that try to reduce these patterns of interaction to a hierarchical system of collection and distribution are inherently destroying the complexity that makes a city a place of creativity and life. Hence, my 25-year campaign to destroy the functional classification systems of the highway engineers.
Second, to paraphrase Korzybski who said the map is not the territory, Alexander has taught me that the plan is not the project. That is, the process of interactions between the plan and the community, the regulatory system, the financial system, the other professions, and the trades and contractors, that makes a project.
And finally, and most importantly, Christopher Alexander teaches us that at the heart of making place is seeing and understanding the things that touch us in nature, in our houses and in our cities, and not being afraid to trust our senses, our emotions, and our deeper cognitive processes. In a hyper-rational world, Christopher Alexander is providing an opening to look at questions of quality, of

ease, of comfort and of beauty, and in aligning these ideas with nature. With a series of principles in The Nature of Order, he has begun to provide us with some tools for thinking about embedding these qualities in our own work.

So, a few thoughts of background about Christopher Alexander, I think you all probably know most of this: Christopher Alexander is an Architect, he was elected the Fellow of the American Academy of Sciences in 1996, he's a Fellow of the Swedish Royal Society, and he's been the recipient of innumerable architectural prizes and honors including the gold medal for research of the AIA. He was raised in England, where he lives today, and holds a master's degree in mathematics and a bachelor's degree in architecture from Cambridge University, and a Ph.D. for architecture from Harvard University. In 1958, he moved to the United States and lived in Berkeley, California from 1963 until he moved back to England several years ago. In Berkeley, he was Professor of Architecture at the University of California, and President of the Center for Environmental Structure. Christopher has built over 200 buildings on virtually all the continents, ranging from schools to private houses, to housing projects in the third world, and public facilities. And his work on patterns has been enormously influential outside of architecture and planning, in the software world, inspiring a whole field of object-oriented programming. His books include A Pattern Language, The Timeless Way of Building, A New Theory of Urban Design, The Oregon Experiment, and the four-volume series The Nature of Order. And his new website, which is being debuted in a room that Michael Mehaffy has set up, depicts the next effort in terms of the creation of a process of unfolding through generative codes.

Well, why is all this work important to new urbanists? And why have we asked him to come before us today and talk about some work that is often difficult, philosophical and even epistemological, at this Congress, which is about implementing the new urbanism, which focuses on the hard practicalities of the development process? After all, The Nature of Order is about some concepts that are as profoundly unsettling today as A Pattern Language was twenty-eight years ago. The idea that inanimate objects, like buildings and carpets, might embody life, the idea that we must create processes for building that unfold over time, and the idea that building places that work for the long haul involves doing things in close proximity with land, with people and in a certain order, and finally that we've got almost all of those things wrong in conventional processes today. In short, Christopher Alexander challenges new urbanists by suggesting that our approach, which seeks to engage with existing processes of production and modify them through the creation of new tools and systems, may be insufficient. For example, charrettes, as important as they have been in moving towards collective participatory processes, may not be the end point in that journey. The Nature of Order implies that the very ways we finance and build

are antithetical to creating places that will evolve organically over time. All this may be hard to swallow. Aren't we on the cusp of some profound changes as a movement? Hasn't the past decade and a half of struggle been hard enough? But as we all know, that when you peel back one layer of the onion you find another layer and another layer, and as we begin to replace U space zoning (??) or road standards, we find the next layer is short-term financing and contracting processes inhibiting us. So, it is rather like pulling on a loose thread on a sweater, it's probably not going to be possible to stop. And Chris, in looking deeply at systems in nature and society, and in challenging us to understand that improved methodologies are not enough, is asking us to keep the eye on the prize: the creation of enduring, organic places that can grow and deepen in complexity and character over time.

In some very enjoyable conversations with Chris Alexander and Maggie Moore leading up to today, Maggie and Chris quite gently probed me about the direction of the CNU, and how we saw the infrastructure and the tools that we had developed: charrettes, smart codes, regional visioning processes, pattern books, and the like. And then reminded me of the profound aspirations of the charter of the new urbanism and particularly the preamble. And therein lies the reason why people like Chris and Leon Krier are so important to us. We are a practical set of reformers, composed largely of practitioners, who engage in the world as it is, making improvements a bit at a time and building systems and tools that at the end of the day have to be grafted onto an existing system. But the charter, like the Declaration of Independence that John cited a minute ago, is a lofty document, describing aspirations and an end-state that cannot be reached in a short period of time with the tools we have, or even with the ones we have developed to date. Surely, the underlying tensions in our movement about affordability, about sustainability in the environment, and about financing and regional economics, tell us that this is the case. Chris Alexander, in describing the necessity for open-source generative processes that embody life, seems to be setting an impossible task. He's really reminding us of the inherent and creative tension within our movement. It's the tension between remaining true to our calling and the process of making a living and doing the best we can day-to-day. We are a set of visionary reformers who seek to learn through practice and at the end of each day, have to make it work in the world as it is. And Alexander reminds us that better isn't good enough, for the problems and pathologies that we are trying to solve are deeply rooted in a set of processes that must be comprehensively transformed. Almost thirty years ago, Christopher Alexander opened a set of doors and challenged architects and urbanists to walk through them. In this century, with The Nature of Order, he's opened a further set of doors and issued a next challenge. And it is for that reason -- that he continues to challenge us -- that on behalf of the Congress for the New Urbanism, I am proud to present Christopher Alexander with one of two inaugural Athena medals.

Christopher, could you join me on the stage and then provide us with the conference keynote. (applause)

Keynote by Christopher Alexander: (starts at 29:30)

(technical difficulty…) Oh well, this is so overwhelming, I totally unexpected when I had this call from Hank. (technical difficulty…)

Is this, okay? I'll try crooning. I was very, very surprised to receive a phone call from Hank, saying that they wanted to give me this honor, and very, very touched. I'm not a gregarious person and I don't move all that much in the great social world, and I thought maybe they'd forgotten all about me. So anyway, it was very, very touching and I was incredibly delighted to be asked to come here and receive this, and talk to you. So, all I can say is thank you, thank you, thank you; very, very lovely.

Now, I'm going to sit on that stool… I'm not used to doing this in nightclub style, so you'll forgive me if the microphone wanders. I want to describe to you a vision, which depends on a really quite simple basis. It's commonly said that we have to learn how to make a whole out of the parts, and this has been the way people have been thinking about the world, actually, roughly since the time of Dalton, about 1800. Dalton… of course, Democritus thought about atoms, but Dalton was the person who really put atoms on the map, in the modern sense. And for about 150 years it was commonly thought that everything was made of atoms. Now, of course, we know that that isn't true at all. So, the correct picture is not that the whole is made of parts, but that parts are made by the whole. Now this is true, … it's true throughout nature, it's true at the time of the birth of the universe, it's true when a tree grows. The tree is not made of leaves or made of branches, it makes leaves, it makes branches. Even if you go to the molecular level, it's not true that the tree is made of chlorophyll, I mean that the leaves are made of… the tree is making chlorophyll. Every part, all the way down, is being made by the tree. And of course, it's not just a process which is going on at one level; so, it isn't actually the tree, but it's the various organs and organelles that are undertaking this work. The same thing happened in the universe. For the first million years or so of the universe's history, there were no atoms at all; the universe was too hot. And now, atoms are being made in the sun, and we think of them as the basic particles of our everyday world. But it really is not true, and it's a colossal blunder to think that wholes are made of parts, when in fact the whole is what generates and creates parts.

Now, this sounds like a very glib bit of word play, but I just want to show a slide (… I'm supposed to press that red dot, okay… and now) … now you're all very

familiar with erector sets and Legos. In effect, these types of children's toys embodied the understanding of the world that was created around the time of Dalton and in the subsequent 100 years or 150 years, and if I may make so bold, these toys and these Lego pictures are not unlike what we are producing and putting in the world at large scale every day. And this is the problem I want to speak about with you.

(technical difficulty) Is it very uneven, the sound level? Is it bearable? is it fine? Is it fine in back? …

Well I'll try and keep my mouth as close to this as possible. I better get some water, excuse me.

(various mic difficulty and experiments…)

This is crazy to come all this way and then I say some stuff, interesting or not, and you can't hear it!

Now how is that? Better? I thought it might be

Now okay, I'll just get my water…

One of the things that people are worried about -- I'm talking about the public discussion of New Urbanism -- that at present, the stage that it's got to, it still hasn't succeeded in putting soul back into buildings. That is, it's accepted, I think, that many important problems, mixed use, greater emphasis on pedestrian, better scale in buildings and so forth… it's accepted that many of those things have been improved, and that's a tremendous achievement given the fact that CNU is really, quite a young organization. But there is this odd sense, and I know many of you share it because I've heard you talk about it, that still, there's something not really living about the products of the enterprise, even when you put all your best intentions to work, and your best thoughts, it is all too easy for it still to come out stiff and not nourishing, in the deeper sense, that you aspire to. Now this issue about the whole forming the parts is directly connected to this problem. I'm going to show you three or four pictures of a housing development in England. I have no idea if it is directly created by somebody who is an adherent of CNU, but it's a similar type of thing. And then I am going to show you some other buildings, which are quite close by, which are genuinely traditional. Because this rather abstract topic that I have raised about the whole and the parts, it may help to kind of get it down to earth, if I say it's a question of what is really going on in traditional architecture. I know that all of you are inspired by traditional architecture, as I have also been, and the question is "well, what is the essence of traditional architecture that you are trying to reproduce?" Now, let me just show you these pictures…

(technical difficulty)

Hold on…

Whoops…

Oh dear…

Something has gone very badly wrong here…

I know that the tech guys did something to my computer yesterday, and this is a serious kind of difficulty… mumbling from background… okay here we are! Okay… okay, thank you

Now, these are recently built, are intended to represent traditional building. They are, what shall I say, they're done with a certain amount of care and perhaps one could forgive them for being a bit too cute. But this is not a whole that has unfolded to produce the structure that you see there. Now, if you compare those pictures that I just showed with this picture for example which is not very far away… this place is literally less than 100 yards from the places where those recently built houses are. This is in India, in a traditional town… this is the **Nolli plan**, which I'm sure you all know, of Rome. These structures are completely different from the assembled, rigid structures that were visible in that first group of pictures. And if you say to yourself "well, why are the buildings that I am making not coming out the way I want them to?" That is, with all the effort, and care, and attention that you are putting into your work… The reason is, that you are operating within a regime, which we have inherited from 20th century architecture. Really, this approach to architecture which doing everything with drawings and the way that it is done… handing over to a general contractor and so on and so forth… and the whole machinery that we have, presupposes that one could actually make an adequate set of drawings of a living creature that is a building; and that if somebody then mechanically assembles that, which is, of course, what the contractor is legally bound to do, it will come out alright. I think the mistake that has been made by CNU specifically, is in not yet realizing that the thing that they were inspired by in the first place: traditional buildings -- Leon Krier has played a big, big role in drawing attention to that, and in doing his best to reproduce it. But the real thing is created by minute-by-minute modification, unfolding of details, room shapes, all of these things are being done hour-by-hour during the construction process as well, of course, as in the pre-construction process where you first site the building and where you work out what plan a group of buildings is to have. It is utterly different to attempt to freeze the future into a sixty-sheet set of drawings, compared with the idea of actually seeing that thing unfold, in which case you have the ability, constantly, to modify what is going on the site whether it be a large site or a small site, and bring it to life.

Now, in Hank's very, very kind list of my background, he forgot to mention one that may absolutely be essential for you to believe what I'm telling you here which is, namely, I'm a licensed contractor. And either build directly… when I was a bit younger, I used to literally do carpentry and concrete work, I was a lead man on a gunite crew… and in any case, we do build many of our projects and those that we don't actually build, we manage the construction. That is, so we are responsible for every sub, every subcontract and so forth. And we write contracts which permit constant, ongoing modification to take place, without raising the cost through change orders. Those contracts you can find on the

livingneighborhoods.org website. But obviously you need a variety of instruments of this sort, even to contemplate this kind of thing.

Now, you look at that plan of Rome, what you're looking at is the trace of actions made by people over time. Each bend in a pathway, or house that juts out slightly, or all of these different things, have all happened because of real human events. And so the human trace of Rome is present now in the streets and buildings that still roughly adhere to that Nolli plan which was drawn a couple of hundred years ago or a little bit more. Of course, Rome, like other cities, is also inundated by new construction, which doesn't know how to do this anymore. But it's very important to see that it is a structurally quite different thing. So, what I'm getting at here is, if you do adhere to the charter and the practice of trying to achieve, in the environment, what traditional builders managed, so magnificently, to do, the first thing you have to do is get your eye on the right ball. The ball involved is not the geometry, it's not "the roof like this", or "the window like that", or the overall shape of the building. I mean, these things do play a role but, the real ball is whether the stuff can come from a sequence of "unfoldings" of the land or the urban site or whatever it happens to be. Let me show you, just to make clear what… I want to show you… This is one of the simplest of all cases of unfolding. These are, of course, rice growing terraces in China. There are very, very few rules, except to essentially follow the contours and to build a slight upstand so that when these things are flooded, they hold the water. It's very, very beautiful, it's very simple indeed, people have been doing it for thousands of years. And this is the kind of thing, a structure that is generated, which again, it would be ludicrous to try and make a drawing of this and then follow the drawing. It's a whole lot better to follow the land.

Now, let me just look at a couple of examples. I want you to try to go with me as to what precisely is it that happens at an unfolding. And it refers to the question about whether what you've just done is synchronous and harmonious and has emerged truly from the whole that was there before. Now, the **Golden Gate**, as you probably know but may not, the golden gate does not refer to the bridge, nowadays we think that it does and because it's painted red oxide, it sort of increases the feeling that that's the Golden Gate. Actually, the golden gate was the gap in the hills that happened to pretty much point due west. So, the people in the bay area would see the sun set everyday through that gap, and that's why it was called the golden gate. And it still bore that name after they decided to put a bridge there. Now, the beauty of the bridge is a very rare example where it actually… I'd almost say it improves nature, because nature is there, it has this very lovely configuration and the builders of this bridge did it so that the bridge perfectly arises out of that whole, enhances the whole, does no harm to it, and strengthens its beauty of feeling and its presence. Now something which I probably don't have time to do in this lecture but… taking steps, small ones, I

mean, of course the golden gate is a huge step and years of planning and thinking and so on … and I just give this to you as an example because I want you to understand what I mean by the relationship of one thing to a larger whole that it came from and that generated it. In a construction process, or in a design process or in a planning process, you can act in such a way that each step you take is what the whole tells you to do; it isn't what you wish to do, I mean although it might feel like that sometimes, but you are looking to see what the whole is giving birth to. And, this can happen in a very, very small way. Suppose for example I've got a house and we're in the process of placing a couple of steps up to the front door, the type of thing I'm sure you've all done and experienced many times. I've deliberately chosen a tiny example, because if you take a few concrete blocks or bricks or planks or whatever, you can easily make mockups so that you can decide "okay, what is the depth of the tread and how wide is it, and how does the lower step have its termination; is it rounded is it square and so forth… how much space is on the top of the uppermost riser?" You all know that as you do that, you can make it ugly, you can make it nondescript, and if you try hard, you can make it begin to be beautiful. That is, you will begin to feel something from that step that is good enough to stay with you. And if you work harder at that, you can finally find a sufficient refinement of the way those steps lay there… of course I should've mentioned at the outset what are they made of and so on… and you can then succeed in getting something which is a permanent joy in that house, and has truly arisen from the whole where it came from. Now, there is not much there in what I've just said beyond A. common sense and B. a welcoming heart. I mean you, have to have a welcoming heart to be able to see this happen before your eyes as you play around and make experiments, and make something a bit wider or a bit longer or a bit higher and so forth and if you're not actually looking carefully you won't notice that one of, let's say two options that you're considering, makes you more whole in yourself just to look at it and just to be with it. And it might sound a rather arduous procedure to do that constantly, all the time, hundreds of times a month; actually, it's not. Number one, it does produce the goods… that is, that it really does deliver. This is not a lot of bullshit. It isn't a claim, a sort of empty claim or a philosophical point, its simply that if you do that kind of process, then, with any luck, those two steps in front of that house will forever be helping that whole that now exists there and has been slightly transformed from the one that was there before.

Now, in a neighborhood, let's say a neighborhood of 100 houses, you could have "unfoldings" of this type going on at many, many scales including the location of parking, and the way that pedestrians move, and where gardens are and where terrace walls are, and what the volume of the buildings is like, so there are many, many things that are unfolding. Over, let's say to build 100 house neighborhood, 2 and a half years or something like that, from the day when you first went there

to the days when it's occupied, you could do that if the circumstances are set up to make it possible.

(I need another drink… talk about time… when he's supposed to end…)

Of course this was commonplace in other periods, I mean, there's a farmhouse, there's a gate in an ordinary fence, which is done like that, this is the interior of a church in the Ukraine. All of this was being invested with this kind of feelings were at work and were guiding the people who made these things.
Now, it isn't just a question of the human process. For example, this sequence shows I think, what is it? -- three days, four days in the development of a mouse embryo, and in particular for one of its feet. This, of course, is just a picture of a normal biological process, but if you look at what's going on here, you see that here on the whatever that is… the 11th day, you've already got some kind of trace, but basically the cell mass is undifferentiated to all intents and purposes. Here you begin to get dark material, which will ultimately turn into bone and blood vessels. Here, you are beginning to see the separation… you see this fork in the road here, which will turn into these two parts of the limb… I can't remember what they're called… the ulna is one of them I know. And then another day later you've got a fully differentiated mouse foot.
>Now I'm not trying to conjure up…
>(mic falls?) Is it here… o good it's here!

This is not a science fiction fantasy, I'm not trying to imagine a 23rd century in which buildings are made by, essentially, biological processes. I'm personally uninterested in those kinds of fantasies. Some people dream about them, I don't. I'm a practical man and I essentially, don't build buildings if we're not able to do this kind of process. I make it my business to set up contracts, procedures, budgets and so forth and time, so that every phase of the work includes the people that are going to be part of the neighborhood or part of the building operation, includes the subcontractors and craftsmen. And as managers, we oversee the process of guiding these, sometimes, sensitive points where an unfolding has to be decided upon, and it could go this way and it could go that way, and you have to look at it a bit hard and then just make an on-the-spot decision. It is… I think those of you that have done work like that, which I know there are many, will testify to the fact the buildings come out altogether better. The question is what to do with the machine that is rolling over us? Because the machine of development, in its present form, it's not just what the developer does, it's what the city does, what the financial institutions do, what the planning authority does, and they make it extremely hard to take this approach which I'll talk about in a moment.

I think before I start discussing the kinds of changes which have actually got to be made to permit this type of work to go on at a large scale and in large projects,

I need to just show you a few examples of cases where actual unfolding might be happening. I'll do this a little bit fast because I want to go back and… oh I know what I… I think I'm going to show you this; this is a fascinating example, some of you may have seen it running on our website, I'll just show you this quickly first: this has to do with the 1000-year history of **St. Mark's square**. Well, you all know what it looks like, don't need to show you that really. It's a lively place and there's a lot of people there and a lot of wonderful stuff going on. So that is the plan of St. Mark's square as it was in 560 A.D. Now you see the little pink and blue things over on the left, as I mouseover those, stuff happens on the plan. The first thing that happens is that some latent centers are identified so that those pink blobs on the left of the area are simply identified as being latent centers -- that is latent potential wholes -- but are not really articulated yet because they're just sort of hinted at by this church, which is sitting there and causing that phenomenon. So, anyway, having identified those pink things, you then say "well, okay, then to give them more life and more substance, we'd need to have a building roughly in the area of where that blue thing is," and that indeed is then done. Here you are ,140 years later, and that building is there and other stuff starts to happen. So now, you've got another pink area, which it describes a latent center over in the area where the campanile actually got built later. Again, you look at what are the latent centers that exist between that pink thing and that church that's over on the right. So, you say, "alright, we're going to put two more buildings there". That's what was done in the period after 700 A.D. Then we've got that one that's now in there, and now we've got another couple of latent centers. In this case… see this… no you can't see if I do that… this thing and this thing they're just virtual centers that exist in space, which people were experiencing on the ground, and the reason that there were two of them rather than one is because the natural configuration caused by this and by the corner of that… this center here is tied more closely to those three buildings, and this center is sort of down by the water and given its position by that. And then when you say "okay, so now to make these two latent centers become actual, we need to build something where that blue dot is". And I'm obviously skipping a lot of what these folks were deliberating about while this was all going on… … so then that thing got built and then we go to the next step. Now, I'm not going to lead you through every step, it would take too long… it would be a bit boring. But I will just do the mouseovers fast so you can kind of see how it goes. Each time, what one's doing is identifying a latent center as a pink thing. For instance, there was something, there was the water somehow begging for some extension; the idea was to put something there. Then indeed, there was a platform built so that St. Mark's extended out beyond, what was then, the doge's palace, which was rebuilt later. So, it goes on and on like that. Very gradually, just from the intense examination of where the latent centers are, and therefore how the whole needs to unfold, you gradually get the build-up of the whole of St. Mark's square as we know it. This was in the 16th century, and it's not been changed a lot since then.

It's interesting because that is a very, very simple regime, a very small number of steps of unfolding that are just being repeated again and again and again and again to incredible effect. Let me just look at a few…

This is an example of the **Eishin campus**, which I'll show you in a minute. This was at the very beginning project, when we had been commissioned to build this thing in Japan and I had spent time looking at the light out there in Saitama prefecture… it's a very unusual soft light. In our yard we built a variety of, these of course are full scale mock ups. But they're just about eight feet high and six feet wide, something like that, I can't remember -- showing the potential use of gray concrete, black plaster, white plaster and wood. And then having made that… that came directly from the wholeness of the land, and one could see that, and then that simple series of mock-ups that I just showed you then gave birth to the color and materials on many buildings on that campus, which roughly followed the scheme that was established by that one step.

This is the living room in a **house in Berkeley**. This is the fireplace which is just next to that huge bay window. For instance, this fireplace was, originally, in the plan that we thought was appropriate, the fireplace was at the back of the room, that is if the bow window is like this and the fireplace was back here, of course like everyone else we have to submit plans to building departments and usually because they know that we do good work, they are not too bothered when we start changing things around. Very rarely called upon to change drawings even when we make major changes in the structure… in this case, it had become clear by the time the ground was just roughly terraced out, and one could visualize that window there just with the mind's eye, it was obvious that the fireplace needed to be in the side of the room so that sitting to the fireplace was also going to let you sit towards that bay window rather than being at the back end of bus. It happens that this is a very heavy fireplace that was contemplated, it's a cast concrete structure, the land is quite steep and so, I saw this happening and we had to… the reason this elaborate stuff with all this plywood here is that the ground was falling away, we didn't have a slab at that point and so to even figure out where it was exactly, we needed to just build this bit of junk here. Then later in the history of this thing, the room now was approximately framed. These were the concrete columns that were to be cast, moveable forms so that we could space them in such a way as to get the optimum spacing for the bays, and we now had the fireplace in position in a cardboard form. And in the same room, we made plaster panels, which we cast in our own workshops, both for the walls and for the ceiling and so here you are back in the first picture I showed and you see that all of this plaster work is up there in the ceiling and --- you can't see the texture very well in this photograph ---there're actually textured surfaces in-between here as well. They're very delicate, they're less than a sixteenth of an

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inch deep, because we made several versions. If it was more than just a trace, it started to be really obtrusive and not calm.

Here's another example of a **building built in West Sussex, a visitors' center**. So, we got the slab in, and then we started to look more carefully at the windows and the walls. The back half of the room there had been planned to make a narrow bit, but once one was standing there, it was obvious that couldn't be done just as we had originally imagined it. We built platforms, just put some plywood down on and finally ended up putting that narrow gallery along the back of the room, which was a very pleasant place to sit, and quite a favorite with people who come in there now. So as that was happening, we're testing what it's like to sit up there, that's why the chair is up there on this rather rickety thing, is the height exactly the right height? Now, the windows at the front had to be modified because all of a sudden now, we've got tables and chairs looking out of a window, which had originally been, in whatever rough plans we had drawn, they were quite low to the ground and, in fact, then … looks for picture… so these windows had to be raised on the basis of those kind of mock-ups and experiments with the blocks, and the chairs and so forth. It looks extremely simple, and it is. But the reason that it moves you when you're there and, in its presence, is because of all this minute care that's been taken with the various parts of it. We made a special sort of thistle-shaped keystone ornament, which you can barely see up at the top of these. I think it might show up in a detail. And of course we had earlier, also very early on, long before the building was designed, we had started to make brick and concrete and flint panels, on the site itself where the building was later built, so we could judge how these things fit the light and atmosphere of the site. And when we were secure that we knew that -- oh there you can see that thistle thing -- we felt ready to go forward and it pays off. There are hundreds and hundreds of decisions in the building, on-line decisions, and I'm not saying exclusively during construction, many similar things were being made in model form, and sketch form, when the building was first being planned, but the unfolding process is the same.

Anyway… I think that's probably enough of that, I won't show you anymore of those just now. How's the clock running? Fifteen more minutes… that's good, thank you.

So, the question is, to learn to create a delivery process, that is an implementation process, which is able to do the kind of thing I've been describing here, on a large scale and in the normal, run of the mill construction. It's not that hard to do, you just have to have the will to do it. You might have to spend a little bit more on architect's fees and project management than a typical percentage paid in the development community would allow for. But you have to remember, I didn't have any pictures of it, but the people who… oh yeah you saw some people

doing… the people whose building that is, were completely engaged in all these decisions while it was going on, all the time. Whenever we made mock-ups, they used to come in and we'd have a talk about it and so forth. In larger projects we do the same thing with families or communities. But the important thing is to get it clear that you cannot make a beautiful thing if you do not do this. And when I say beautiful, I'm not talking about some architect's private notion of beauty or of some sort of aesthetic criterion or anything like that. I'm talking about whether the buildings you make do nourish the soul. So, people who are in those buildings and who own them, or live in them or work in them or whatever it is, actually feel that they belong there. They feel that this is part of them. It would be very easy to say "well, development is development and we can't afford to screw around like that, we've got to make some money and we've got to use the procedures that we know they work." I understand that sentiment, but I very definitely do not agree with it. And let me tell you why. You could say that among all the professions, at least in the industrialized nations, the developer is doing the most important work that is being done in that society. The reason I say that is, they are actually creating our world, the world for millions, hundreds of millions of people. Somewhere along the way, the notion came up that it was a developer's right to make large profits from doing this task. Now actually, the business of profit has nothing really to do with the skill and dedication that is needed to do the kind of things that I have been describing to you. So, I would say that on moral grounds alone, and on practical grounds, because after all, there is a huge public out there who are growing increasingly impatient with the deadness that so often exists in the newly built world, and as I say my not entirely humble opinion is, that shaping the things so that they resemble older forms is not what's going to do the trick. What is going to do the trick, is that every decision is made with love and care, in the right order, so that this harmony, which I'm attempting to communicate to you, actually comes about. And so I think that very powerful argument can be made that developers, no matter what they may choose to do or not wish to do, need to take responsibility if they wish to continue doing the most important job in the nation. This is a very very funny idea, that the people who hold the future in their hands, are working in an atmosphere where financial reward, very huge financial reward in some cases, is what they get for doing it. How inappropriate, somehow, if care for the world and care for the land and care for the people who live in it, is actually the front of the agenda. Then we must rearrange the way that the development process works. I think that CNU, especially with its renewed emphasis on implementation, is in the ideal position to undertake this or attempt to undertake it or to share with those of us that are doing it from other directions to do it. Make no mistake, it's a massive task. I'm not underestimating it at all. But if it is true that the kind of process that I've been showing you is what it takes to make a habitable environment, then no matter how easily you may be led to say "it's impossible, we can't bother with that, we'll never work, we can't get it to

happen, the city won't let it happen" etc., really those kinds of brush-offs are not sufficient to deal with the gravity of the issue.

Actually, there are two or three things I'm going to say that I haven't got to yet… first before anything else, I'm just going to show you a few slides of the **Eishin project** quite a few years after it was built. I think you will be able to feel the human atmosphere that is in that place, because I want to bring it to your consciousness. First of all, it's a pretty large thing, it's not huge, but it's roughly nine city blocks and its about 300 meters by 300 meters and it contains a large number of buildings. But I just want you to look at the expressions on people's faces and so forth. Now this was at the very beginning when we were laying this thing out, there was large numbers of the community involved were out there placing flags in what were then tea bushes to indicate the buildings. This particular drawing is a take-off from the flags, and then that was drawn and became the basis for our submissions. The process of that sort that was having to do with walking about and saying "well, the line of this particular path should go a little bit further over that way and so forth" … were still going on at the time when heavy construction began. So here, as you can see, the site is in major upheaval just with heavy construction. And here we still are, with bamboo and strings, adjusting the precise alignment of one of the entrance paths, which was sort of a processional way into this campus.

I'll just run through these without comment really…

This was the central building where people were allowed to do pretty much anything, as you see…

I hope you will believe me when I say that you cannot get that kind of thing to happen without going through the sort of procedures that I've been speaking about. If that's true, is that big enough to turn our heads around in terms of how we handle development? One of the things… oh yes, hold on… There's an aspect of the whole, which I want to mention. If we go back to the issue about "well, buildings that we're making at the moment don't have enough soul," and one tries to sort of put it in precise terms, you can say well there isn't spirit in it and so forth. You can be a bit more practical and down to earth and simply say when something has unfolded from the whole, you feel connectedness there.

(two-minute warning) two minutes… Yayy!

So, the identity that you feel and the connectedness that you feel, come about when the place you're in has unfolded from the whole. People often ask themselves "why do I feel so good in nature and why do I feel so not so good in whatever group of buildings…" it's because when the thing has unfolded from the whole, it touches you in every part. Spinosa was of the opinion that the whole and God were virtually identical, but he was considered to be an atheist

by religious folks of the 17th century, but he… I certainly believe that too. There is only one whole, and when what you do can be brought out of that whole and unfolded in the way which I have so inadequately described in these last sixty minutes, it is as if by participating in this, you are being given a connection to the whole. That's what people yearn for and that's what they mean when they say "well such and such a development is okay, but it isn't doing that." And yet really, as architects or builders or developers, that is our job, that is our business and that is what we are entrusted with.

Since I have reached the end of my time, I haven't got time to go into the one thing I wanted to show you, which was a sort of first sketch of a charter for developers. I can ask the organizers whether it would be possible to make copies, it's only one sheet, its very summary, it's a draft. I'm hoping to engage people experienced in development in the formation of this charter. I hope to begin that this coming fall in London. So, if we could make arrangements, possibly, to have this single sheet distributed. I can also tell you that I'll put it up on livingneighborhoods.org. (chat with Hank?) Thank you very much, most appreciative…

Applause