

Interview with Craig Hartman

By Paul A. Harding, FAIA



Craig W. Hartman, FAIA. Photograph by Paul Harding, FAIA.

CH: When the Diocese began to process their selection of architects, they first looked at the work of individual architects that they had on their long list. After narrowing the list down, they asked a series of written questions to decide on the final three architects. These three architects then entered the design competition. I thought the questions were very provocative and interesting. I received these questions in the mail around mid-December. I thought I would spend a weekend doing it. However, as I got into it, I found that there was no way I could do this in a week let alone a weekend. I ended up spending an entire Christmas vacation that year working on this kind of essay in response to these questions. I don't recall the exact questions but among them were "How would you design a contemporary Cathedral that would have meaning in the 21st century and yet at the same time honor 2000 years of Catholic history?" And another question was "How would you design a building that would create both sacred and civic space?" "How would you make a place that would respond to the kind of culture that exists here in Oakland?" These questions gave me great hope that this would be a very interesting commission if we were successful in getting the project. They were also fundamental questions about what I would be doing if I became the architect of the cathedral. It was helpful for the Diocese in selecting architects for the project but also helpful for me at least in considering how to approach a commission of this sort.

What I found particularly interesting was the question of designing a building that honors 2000 years of Catholic history that would also be a place of our time. I thought about my own experience in various cathedrals from college tours on a shoestring budget to later travels throughout my career. Within these cathedrals, we're always impressed by the great soaring qualities of monumentality, but it seems to me that the other equally profound idea is the quality of light within them. Since the very earliest cathedrals, the Catholic Church has been especially involved in considering the way that space, light, material and form can come together to inspire us as humans. The question of light is particularly important to me, and it's interesting how it is referenced in the biblical text. Among the first passages of Genesis, God's creation of light becomes the first evidence of God's presence on earth. Light was the first creation, and from that we proceed with water and land and fishes in the water and eventually to human beings. Great cathedrals, sacred spaces and biblical texts all refer to light as God's presence made physically manifest in space. In thinking about this project, light was as elemental as thinking about the structure or the enclosing system. Also, it was important that to understand light you also have to have darkness as part of this. The experience of this building is meant to be one of light and shadow.

When first thinking about light in sacred spaces like cathedrals, we often think about stained glass and the way light illuminates these decorative windows. For example, Saint Chapelle in Paris is this incredible place that is all about light coming through these beautiful windows. When looking at the history of sacred art, these windows are essentially pictograms meant to tell the biblical story to an illiterate society. By the mere fact that they were created by artists of their time means that the depicted stories have been filtered through another sensibility, a person, with his own cultural biases and cultural inclinations. With the building located in Oakland, California, one of the most multicultural settings on earth, it seemed important to have this building be about light, space and form without telling a story through a cultural bias that suggests a certain set of images. This is a very variegated place of ethnicities and cultures. People with their own cultural backgrounds and life stories can come to this place and allow their spiritual journey to be shaped by what they've learned and where they came from as opposed to being told a story that may or may not be of their culture. The intention was not to color the story but rather have meaning that comes from the text and from the teachings of the clergy and the community leaders. That was number one.

And the second idea was creating a place that was both civic and sacred. This was an equally perplexing question. I have to say it's been quite interesting to see how the clergy and the Diocese have already taken great steps to try to make this not only a sacred space that is fundamentally about the Catholic faith but also a place that is open and welcoming to many different faiths and cultures in the community. There was a beautiful performance two few weeks ago of Brahms' Requiem that was free for the entire community. It was a packed house, with probably more people than the Fire Marshall wanted to see in that space. To be a civic space, it needs to be physically engaged with the city. This was another critical point in the design of this building, creating a space that was very porous and open to the city, physically as well as culturally.

In the course of history, 2000 years of religious art and architecture, layers on top of layers of meaning have been added to churches and faith over the years. It seemed like a worthy endeavor to try and strip away as much we could to get down to the most

elemental qualities that would form a sacred space and to understand what shelter is. Considering Vitruvius's primitive hut made of wood in the forest is one of two ways to think about shelter. This hut is constructed of wood and materials becoming a shelter in the forest, while the other shelter is that of a cave. I wanted to design this building as if it was grown from the earth and from the forest. My original thoughts turned to the material of wood. This idea of using an organic material, like wood, would be a way of making a very profound connection between us as humans and the nature in this space. The use of wood also has many other metaphors and physical qualities that derive from the biblical story such as Christ himself as a carpenter and the story of the arc.

There is also another connection in the materials which arise from the site's location on the Pacific Rim and the materials available nearby. The building relates to the materials, shape and form that reflect the fluidity and natural elements of the aquatic world that surrounds this location. It is important for the building to engage with the city and have the space outside be equal in importance to the space inside. This is inspired from the church Saint Pietro, the original church in Rome. However, being that we're not building in Europe in the 15th century but instead in the 21st century in a multicultural place, these connections are made in a new way and with new materials. Here we're building for a very different culture and a very different place in time.

The site itself is a setting. The Lake Merritt is a very large body of water which is connected physically and metaphorically to the Pacific Ocean. It is a hinge between the natural world and the urban developed world. The long axis, which is actually not orthogonal to the site, is turned to reflect the long axis of the lake. This aids in engaging the community itself while also relating to the natural axis of the site.

The Pacific Rim offers a kind of beauty similar to the asymmetrical and fluid paintings of the fishes that I discovered from Shanghai. The idea of the fishes being in balance and yet asymmetrical in movement, creating very fluid shapes, was part of the intuitive inspiration for the building itself which takes a softer and more fluid form instead of a linear hard edge. This idea was informed by very early readings that I did in preparing for this competition. I asked Walter Netsch what he was reading, what he was looking at and what his inspirations were when he designed the Air Force Academy Chapel. Although the Chapel doesn't look anything like this at all, he told me he was reading a book by Rudolf Schwarz who was a German philosopher, architect and friend of Mies Van der Rohe and the author of a book called the *Church Incarnate*. This book been published just about the time that Walter was trying to work on his chapel. This book really endorsed this idea of what he called "The Ring" which is that the altar in a sacred space should be in the middle with the community of believers all around. This is opposed to the linear, hierarchical form of the basilica where you have a congregation, a priest, and above everyone, God. And you, yourself, are somewhat associated with this. So this pointed me away from a cross-shaped church with the nave as the cross aisles. As I talked to scholars of the Catholic faith and clergy, I discovered that the Vatican II in the early 1960's also advocated the idea of the central altar and encircling congregation and community of believers. All these things came together to suggest the shape of the building.

The next task was to find a geometry that would give structure and form to those basic impulses: the idea of fluidity, the altar, the ring, and the nonlinear hierarchical space. We began to see if we could draw two large intersecting circles, creating a new

shape that would begin to hold these ideas. The circle has great meaning in almost every religion because it is without beginning, without end, and suggests the possibility for renewal. Throughout history, mathematicians have thought of this intersection of circles as a sacred form. The intersection of circles creates this point of ellipse. As I was designing this, I talked with my friend Jamie Carpenter, who said, “Oh yes that’s the Vesica Pisces shape.” And it is - it’s actually a shape that is a well known geometry, also known as a Mandorla, a 12th century shape that is often used in religious iconography and to frame images of Christ. This was a very interesting phenomenon to discover. In design, at least in my experience, it’s a cyclical process that starts with an intuitive idea, or an idea for the site, that informs a second idea. Then you discover something and that forms another idea and then perhaps that begins to reshape something that you thought earlier. So these ideas began to coalesce. It was interesting that as we did research, we found pictures from the Hubble Telescope, taken a few years ago, also record in space the same phenomena, the same kind of shape – the star nebula. There’s also the early ichthys, the fish-shaped symbol that early Christians used to identify their place of worship, that also forms the same shape. The intersecting circles became very powerful both as metaphor and as a strong organizing idea for the building.

In looking at the plan, you can see how the circles began to inform the design. Some of my early influences from having worked with Walter Netsch for a number of years involve trying to find geometries that have a unifying idea. This circle and this geometry of the Vesica Pisces became a scalable idea with a creative field that began to foster other ideas within the overall piece. The bishop likes to call this cathedral an icon that houses icons. The idea of smaller circular forms that began to create placement for other ideas – like the baptismal font, the main altar, the Eucharist, and the Eucharist chapel – all found within smaller circles inscribed within larger geometries, each of which intersect to create their own separate Vesica Pisces shapes.

The next challenge was how to make this idea three dimensionally. I took these same exact circles that would form a plan and created spherical volumes. Uniting these two spheres in three dimensions, I cut them to reveal at the top the same Vesica Pisces shape and what now have eventually become the alpha and omega windows at the end. These spherical segments are inherently self supporting – they’re strong shapes, and I knew we could make them of wood easily enough because you can shape wood in complex geometries. But the question of how you then enclose this and protect it from the elements was a key thing. The next piece of this came from a pragmatic idea about keeping the wind and water out of the building. Taking two conical segments, we enclosed the intersecting sphere volume with a concentric base. The cones could be made of flat pieces such as glass or other materials. I thought of glass because it would be affordable and let light in. As they rise up, we’ve laced them together with compressive and tensile elements to create a three-dimensional, composite structure to give this space a great lightness.

Two or three years before this, I had seen the first installation of Richard Serra’s Torque Ellipses at DIA Art Gallery on 22nd Street in New York City. The powerful forms and geometries that slip by one another along with the different surfaces that reflect light and demonstrate space were very powerful to me. The unfolding Torque Ellipses resonated, and the idea of having a sphere and a cone – although very different from the Torque Ellipses - in many ways had some of those qualities. At the same exhibit at the

same time, DIA had Fred Sandback, the minimalist sculptor, who describes spaces solely by string in very minimal gestures. Seeing those two things together, the ephemeral lightness of the string and the great visceral weight and strength of these shapes of the Torque Ellipses were very powerful. While they were not literally part of this church, the sensibilities for me were just extraordinary and really amazing. At the same time, I worked with Martin Puryear, another artist who worked with minimalist shapes and involves a lot of woodcraft in his art. All of these artists have been very important to me in terms of thinking about space, light, form, and material. Also, as I consider my early influences – my first real memorable experience with sacred architecture was hitchhiking to Ronchamp while in college. It was real important to see Notre Dame by le Corbusier which is all about raking deep light into this cave-like space.

In the master plan, the idea was to put the building on the north end of the site, with gardens and open up with light on the south side. A longer term idea, for future fundraising opportunities, is a bell tower, a campanile which is already designed. It is based on the Fibonacci sequence which unfolds both in plan and section in the same glass as the Cathedral itself. Walking you through the site - you come down 21st street from the BART station and see this emblem, the bell tower, at the corner that marks the presence of the Cathedral at that point. You can see how the Cathedral itself is turned and relates to the long axis of the Cathedral and the lake. The idea was to invite everyone regardless of their faith to be apart of this place. Separating the civic and sacred space, there is this inclined plane, a kind of walkway, which slopes upward from 21st street where you arrive, and then turns counter to the cathedral and ascends upwards. You travel up this ramp and arrive in the upper plaza. So you come up through the dependencies that form the outer edges of this, the rectory, the diocese office space, and ascend upwards. In flanking this, there will eventually be redwood trees that have been planted and will frame the procession upwards in a very majestic way.

On the north, there are the gardens, that are open to the city and to the sun, an outdoor café and a bookstore that are meant to create a kind of social and urban interface here, along with a sculpture garden on side facing the lake. The civic step brings you up from the lake to the plaza. The central idea here in terms of the site organization is knowing the plan but also the section. When I first looked at the site I was standing at the upper section looking across the lake and there was a 16'6" drop down to the lower lake level. I made an artificial ground plane, on a different level than the city, and placed below this level the majority of the dependencies - the conference center, the diocese offices, the mausoleum, the parish halls, service support, facilities, parking. Along the city level there is the Cathedral and the gardens, both the bishop's and the clergy's rectory, the bookstore, and so forth. Stairs and ramps provide a strong physical connection between these two levels.

The building itself is very open as wood beams lace together creating an open lattice designed to let light come into the space in a very luminous way. The wood itself glows during the day. At night, it is the opposite, with the light illuminating outwards, transforming the building into a lantern to the community. A lot of factors in this building had to do with an economy of means due to the modest budget of the project. For the outside fretting, we have one layer of fretting, plus a translucent film. If we'd had the ability to use an extra layer of fretting we would've had just a very small amount of transparency along the outer shell of glass. As it happens, we have just the lightest and

the most transparent of translucent films with an overlay of opaque ceramic fretting on the outer conical shells of glass. The idea was to make these outer veils ones that would glow when light struck the back side as well as being very solid with light in the front. The idea was to think about light in a different way - where the building is being illuminated from behind and in some cases, glows like a lantern during the day. The opaque pattern is a single pattern which then is turned up and down to create a variegated pattern across the surface.

The building section includes the same circular metaphor, beginning with the Alpha window facing south where the most intense light is. The shape transforms from a curve to a crease made of a diagrid of glass on the outside and a diagrid of metal inside, separated by about two feet. The diagrid of metal opens up as it gets to the top, like a flower or a plant that has opened its leaves to the sun. The ocular ceiling involves the same basic geometry and materials. The Omega wall, or window, ends behind the altar with the circle continuing into the mausoleum below. Light travels down from the altar into the mausoleum space. The original idea was to actually extend the baptismal font down and enter through a void, directly through the underlying portion of the baptismal font with water coming down through the mausoleum, but we couldn't afford that. We do have that same circle, extruded down, with the same stone from the baptismal font down into the mausoleum. You pass through that cylinder as you walk in, at the entry, and then descend further. When it's finished, there will be water that comes down. There's a constant reference back to the baptism, the absolution, and the entering into the mausoleum itself.

In the sanctuary, it's not a concentric-shaped space but sort of a hybrid space in which the altar is the center point for both the congregation as well as for the clergy and the choir, with the Eucharist chapel behind it. So it is very much the center point although it is off center a little bit. From that point, the primary aisle goes directly down and connects itself to the baptismal font and continues through the main stair and window, opening itself to the lake and the lake access. There is also an olive tree on this access. The other way, coming up the Pilgrim's Pathway, you're on axis with the baptismal font and then turn to proceed up to the main altar. The other aisles radiate out and cut through the reliquary wall to reveal the city, the lake, and connect back to the altar itself. Between these we have a series of spaces and voids within the reliquary wall that are carved out for the separate chapels. These chapels bring in light in interesting ways. We did studies of the ceiling involving varying degrees of perforation just using Strathmore here in the office.

For the pipe organ – there are two shaped acoustic canopies that come into the space that provide acoustic reflectors primarily for the choir as well as for the clergy. On top of this will be installed (currently under construction) the main pipe organ which will be primarily wood pipes and some metal trumpet pipes. This is organized organically, almost like a grove of saplings, where the wooden pipes will rest on top of the canopy and bring light off the reliquary wall to the other side.

For the concrete wall – there were elements that the Church wanted but were out of the question due to the budget. In the end, it was better to have it a simple mass of concrete with very careful sculptural decisions. The church suggested stamping it with stone stamps but instead I had a different idea. We developed a complex system involving a Fibonacci sequence to relate it to the pouring sequence of the tie backs. I

thought we'd just send those files to the contractor but it ended up becoming too complicated for the contractor to pursue.

We started focusing on other elements in the building and considering creating an image out of pixels. We've seen over the years in all kinds of examples of art, from wood cuts to the work of Chuck Close, that pixels could make up and describe almost anything. With this idea, we thought to make the pixels by simply making holes in the metal so that the light could come through, becoming light pixels.

PH: So the Christ image – was that coming from you or from the client? Who found meaning in that image?

CH: The idea for the image was something that came from me. There were some other proposals to hang a globe or a panel down from the ceiling of the altar which worried me because they did not seem fit for the building. I suggested the idea of doing a large image on the Omega wall in pixels from light that was coming through the wall. In the beginning, however, as this idea that I had considered a year and a half before came into fruition, I realized that I did not know exactly how to achieve it. I thought that we would have to do it with some guy that would make all these holes by drilling, something which we could never afford. We got a laser cutter here in our office about that time, and as I just happened to look at a model, it occurred to me – we could use the laser to cut holes instead of drilling. With a laser we could do almost anything. Lonny Israel took this idea and developed an idea for a gray scale and how we could use different sized openings to create the appearance of shade to shadow.

As for the image itself – I didn't know what it should be. What representation of Christ should be selected? What does Christ look like? Christ has been interpreted by the cultural biases of every artist, reinterpreting Christ in different ways. Many people thought that we should commission artists to do this – but I didn't know of any. I'm not that familiar with religious artists practicing today and didn't know who would really be able to do something that would have the right character. So I asked the bishop if we were to use any historical image, what would he use. He told me to go to the west portal of Chartes Cathedral where there's an image of Christ in stone. This sculptural relief is very powerful, and we created a digital recreation of this image which held particular resonance. This image that came from an early Christian place with an Old Testament look to it, made originally of stone and of the earth for a non-literate society, is translated forward now into the information world of the 21st century by using digital technology and screen application. There are times when this image dissolves and is almost not apparent. I worry very much about the critical integrity of us making a work of art here, but it seemed like a very appropriate way of taking a piece, made by a craftsman, made by an artist, and interpreting it through a new sieve of technology that we have today. So that's where it comes from.

PH: When I first entered, it was just amazing because I never expected anything like that and of that scale and quality.

CH: We did this mock up first on paper and then with our own computer laser and a large big piece of plastic. Sticking it up right here in our conference room, we stood back far enough to see the light come through. Standing up close it looks like a series of dots and holes, but standing far enough back and knowing this is a very large space – that's when it becomes very legible and understandable.

But I'll tell you - the issue was that the Bishop became convinced that this would work, though it was still very experimental. We ended up sending the computer files directly to the fabricator in Germany who fabricated the panels for a mock up. The idea for the second phase was a mock up on the site with two actual size panels. So here's the bishop over here on the left, Bishop Allen Vigneron, Father Paul Minnihan, on the left and then Brother William Woeger, the art consultant. So we went out there on a day like this, and I told the Bishop as we entered through this door into the space, I said, "Look, I want to bring your expectation down a bit because this will only work if the light is stronger from behind the image of light coming through and the light on the surface is less strong, because if light is strong on the surface, it's going to erase the image. Or, it's going to really reduce it to the point where it may not be visible, or make it not very powerful." So we walked in and here it was, mocked up on the site, and sure enough, you couldn't see a darn thing. There was so much light on the surface you could just see blob of the eyebrow and nose, and it was an absolute disaster right in front of the whole group. The bishop, the building committee, everybody's kind of shuffling their feet around and I'm thinking to myself, it's pretty much going to work in the right conditions... but it was definitely not the right condition. And the contractor said, "You know, this morning it looked very good." We sort of came to the conclusion that if we somehow shade this surface, there would be more light behind it, and we could get a better representation of what it might be like in the cathedral. And even then, I was thinking to myself about how much light would really be in that building. So he hooked up a twelve ton dumpster here and raised it up about 40 feet up in the air to the point where it cast a shadow across the surface. Low and behold, this image of Christ just came out of the material. It was like a miracle, it was really amazing. And then the bishop just said, "Oh... Yes." So in the end, it was a great moment. But still back in my mind, lurking was this question - is this light condition really going to be perfect to make it legible within the building.

PH: What about relationship between the beautifully crafted wood as one of the materials alongside the high-tech outer skin?

CH: When the wood went it up, it went up very quickly. The wood was manufactured up in Oregon. I was really delighted to see this construction of the wooden struts because it really did demonstrate the luminosity of the wood materials. But I knew that when going from the construction of the wood to the outer skin, some people would be really disappointed because we were hiding all this beautiful wood. But to me, that was really part of it. You're going from this more elusive, ephemeral and light urban outer skin that strikes light in an interesting manner. But then when you enter in, you're in a sanctuary that is very much about the earth and the making of these pieces. There's this real luminous quality when the light that strikes the back side of this glass and shines on the wood itself.

The light and the way it changes affects the Omega wall in an interesting manner as well. Up close, the Christ image is just gone. And I really liked the way that when light goes across the face of it, it becomes completely merged with the architecture - and light, architecture, and material really become as one.

PH: What happens with the image and the Omega wall at night?

CH: At night, a lot goes away. We actually have lights behind it. And there are many different ways you can play with the image in terms of lighting. However it's not always the same and you kind of have to live with that. It's also pretty interesting from the

outside, as it appears very other worldly, almost ghostly. As times passes though, it's interesting to discover new perspectives and ideas. I'm looking forward to the Easter Virgil with a sunrise for example. People in the cathedral will hardly see the image in the beginning, yet as the sun comes up, the image will come out as well.

For the doors, my original concern was that fancy bronze doors sculptured by an artist would be out of budget. I turned to simple wooded mission style doors accepting that future generations could always add on more intricate doors. I found that the cost of the mission style doors was pretty extraordinary which inspired me to design something that could be more worthwhile and permanent. They let me design the doors and the inscriptions on the handles. I took the same radius as the baptismal font and inscribing it on the door itself with the Vesica Pisces shape. Continuing this fluidity, the lines become this radial pattern on the handle which records the Fibonacci sequence. We created computer digital drawings of this so that we could create a rapid prototype in our office to test the feeling of the handle itself. We then sent for a plastic version of the same thing which is now in an exhibit. As we approved it, we sent the files off to Los Angeles where they used a Lost Wax technique in which a Styrene version was made by digitally created molds made of ceramic. And then from there, this was kind of a weird transition – it went from all this high tech computer technology to these two guys who melted metal into a bucket and poured it into the mold to make these pieces. Then it was broken out of a cast and lo and behold there it is.

PH: What is the silvery finish on the handles that has this textile component to it?

CH: It's all stainless steel that is bead blasted. One thing that I wasn't able to do which I considered was engrave something on the backside. We have a thin ribbon on the back side that faces the door itself, and I wanted to engrave on that ribbon one of the prayers the Bishop Vigneron had written for the building, in reverse like Da Vinci. You would have to take a mirror to kind of read it, which would've been a really cool secret thing but we just didn't have time to get that done.

So anyways that's it. That's the long story, made long.

PH: One of the many things that I like about it is that the building itself is very Catholic. It brings back the values of the Catholic Church, rich with symbolism and meaning that the clergy and the average person can respond to. When they go there to worship, it's something they can really relate to and appreciate. I think it's such a powerful building.

CH: There was a lot of discussion over time about art and music, and also about technology. And there was a lot of discussion about whether we need to have screens or some way to project images. A lot of churches introduce multimedia in these places. And I'm not against that, there's certainly a place for that, and for certain people it can really enhance their understanding of the experience. Somehow, it seemed to me that you're almost moving yourself away a little bit from the immediacy of the experience. It seemed to me that if we could just– reduce, reduce, reduce, and just have it down to the very essence – that would be the aspiration there.

PH: I think that's part of what makes the building so powerful. It has this limited palette of materials and it's beautiful – it's like being inside a ship, a musical instrument – it really works so well together. And then you get this kind of ying yang relationship between the concrete and wood. As you're walking up the hill, it's predominantly concrete architecture and then you get inside and then, all of sudden, it's totally dominated by the wood but yet the concrete is still there. The wood's also got this kind of

neat human quality about it, and I know someone might say that they don't like the knots of the wood in the sunscreen, but the imperfect quality of that brings out the humanness of the building and what it's about.

CH: That's a really good observation. Because when we were doing the wood, there was the natural impulse by the contractor that it was going to be expensive because they have to have this perfect wood and it has to be perfectly matched. However, for exactly the reasons that you've articulated to me, it seemed to me that it's important that it not aspire to some kind of version of perfection. The idea of the very simplicity of the material itself should be evident. So knots, color variation, were all very much a part of that decision.

PH: And I think the way that you've used the daylight is just amazing. I was in Rome just two weeks ago for an IFRAA tour, and I was really struck by two churches by Borromini – San Carlino and San Ivo, where he works with the daylight, and the daylight along with the surfaces within, you get this sense of the mystery of God. And you never get the direct sunlight – and then I came here saw how skillfully the daylight was modulated. For this building, light is modulated in so many different ways – from the image of Christ on the Omega wall to the side chapels that rake light into dark spaces.

CH: The intention was to try to make that reliquary wall almost cave-like, opposite of the very luminous sanctuary. I think where it becomes the most effective, interesting and poetic is when the light source is mysterious, where you see a surface illuminated but the source of light not immediately obvious. And I think it has a very important part of that aesthetic.

PH: I also found the procession very powerful - from the point of view that in so many buildings, you just go in the front door and you're there. Here, there is a spiritual significance of traveling up the ramp that also provides for a moment to compose one's thoughts before entering the space. Inside the building as well, there are great connections made from the interior to the exterior, and from the sanctuary to the mortuary.

CH: I'll tell you though; there were only maybe two or three major disappointments of mine in the outcome of this. One was the concern about walking on the glass beneath the altar so we used frosted glass. Before the glass was put in, though, you see all the way up to the ocular ceiling above – that was a very powerful thing.

PH: I think right now it still looks real – it's kind of like you're looking through water. And then when I was there, there was a member of the diocese explaining how beautiful this was and how moved she was by the way you created that relationship between the altar and the mass, and then the service below – it was really powerful.

CH: I have to say that that's been the most rewarding part of this whole thing, how the members of the diocese, the community, have really embraced this space, and how it seems to be really part of these people in a really powerful way. It's been really a great outcome of that whole experience.

PH: Well Craig I think you've done a building for the ages, and you should be congratulated for it.

CH: Thank you. One of the big challenges was that the diocese said that they wanted a building that will be here for three or four centuries. Well it's technically possible to do that, but the challenge is making something that's worthy of being there for three or four centuries. And that has been the goal.