1998 Francis J. Plym Distinguished Professor in Architecture
UNIVERSITY OF ILLINOIS AT URBANA - CHAMPAIGN
Dominique Perrault

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Clarity (Tout Est Clair)

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"Every solid is a unity of absolutely free units, and what we see in nature is simply the mass integration of free units and the various amalgams of steel and stone. This apparent amalgam, in fact, contains units of many kinds, including space. In other words, the fusion is not total, and thus solid matter does not exist in nature. There is only energy. Therefore, everything is linked and at the same time separate in its own motion."

—Kazimir Malevich

In Kazimir Malevich 1878-1935 © 1990. Published by the Armand Hammer Museum of Art and Cultural Center.

After our visit to Mies van der Rohe’s Farnsworth House in Plano, Illinois, Dominique Perrault entered a simple statement into the log book: "Tout est clair!"—translated from French: "All is clear!"

Clarity! What an appealing idea for architecture. Surely, in this project of Mies, all is clear in the concept—an open plan with a private core dividing the functions of the home directionally, wrapped entirely with a clear skin of glass. All is clear in the context, where the landscape penetrates and determines the quality of the interior space: With its purity of ideal planes, the Farnsworth House sits as a medium through which to connect to the dynamic of the natural wooded environment and the flowing Fox River. All is clear in the honesty of the material surfaces, which one directly contacts on the interior of the home. The Farnsworth House is an architecture of clarity. All is pure. All is open. All is material. All is energy.

The idea of clarity returned to mind after visiting projects of Dominique Perrault. Clarity exists in purity of form, cleanliness of line, explicitness of intention, definitive precision, and relativity to situation. During a studio
review of my junior level design students, Dominique stated that "a good project exists exactly at the meeting point of the concept with the context." Indeed this is true with his architecture. Each project is both conceptually and contextually effective. In other words, each answers the question Dominique always poses: "How can I change in a positive way the situation?"

The true architecture of Dominique Perrault exists between the pure form of the concept and the energy and life of the relative context. The concept is hard and precise, a pure abstraction of rational human conviction. It is as measured as Descartes, as each circle, square, and plane is an ideal Platonic geometry. The context contains the energy—urban or natural life, flow of vehicles, people, sound, light, landscape, wind. At the "meeting point of the concept with the context," the candid forms and the site establish a relationship with one another. The building becomes a framework for the life of the context. In Perrault’s manifesto project of Kolonihaven in Copenhagen, the transparency of wall planes allows the landscape to flow through the space created by the four glass walls and permits the continuity of the forest. In winter, the walls modify as they collect frost.

4. Aerial view of construction: Olympic Velodrome and pool, Berlin

The strategy for the Olympic Velodrome and Swimming Complex in Berlin led to an architecture of pure forms that disappear into the earth while simultaneously creating a new urban public landscape textured with apple trees. For Perrault, the minimal insertion of a precise, immaculate form with delicate materiality establishes a relationship with, reinforces, and reestablishes the power and potential of the site. The form of Perrault’s architecture creates not a presence of object, but rather a skin, a layer. Like a clear canvas, the architecture of Dominique Perrault is a membrane that reveals potential energy.

5. Kasimir Malevich’s Suprematist Composition: White on White (1918)

All is clear. Or perhaps all is energy. In a recent discussion, Dominique referred to Kazimir Malevich’s Suprematist Composition: White on White. With this painting as an example, Dominique referenced the
paradox of his architecture. The painting is not a painting in the traditional sense, but at the same time it is art. The focal white square is a minimal intrusion on the canvas that merges into the field within the frame. Similarly, the work of Dominique Perrault makes a minimal insertion into the landscape or urban fabric. The architecture situates a bold gesture of ideal form, yet quietly reveals the potential power of the existing site. The building itself disappears. Like Malevich's painting, the building is not a building, but at the same time, it is architecture. The building is a “unity of absolutely free units” and a synthesis of the energy of the site. Perrault's architecture becomes a framework for energy, which flows through and around—and spills into and out of—each project. To use Malevich's words, "everything is linked and at the same time separate in its own motion."

The parallel of Dominique Perrault's architecture with Malevich carries only as far as non-objectivism. Perrault's architecture is not an architecture of New Suprematism. For, while Malevich's pure forms dissolve into the canvas as non-objects, his art
clear relationship with the situation. The architecture becomes a medium through which energy flows—a robust palette of materials inserted between the concept and the context as surface, a screen. The luminous and filtering metal fabrics, clear skins of glass, and honesty in all materials helps establish an architecture of clarity.

This is the architecture of Dominique Perrault. Not a static object-form, but a framework that allows “the dynamic interplay of all free units and space—a framework that exists at the point between concept and context. His architecture holds a subtle power that is refined on all scales. The architecture is brought to the surface not alone but in clear relationship between its elements and its surroundings. Clarity. Like the Farnsworth House in central Illinois, all is concept; all is context; all is surface; all is pure; all is energy; all is clear.

suppresses texture and materiality. Malevich preferred the monochromatic use of color in both his paintings and his later three-dimensional “architecton” studies. Perrault’s architecture fully exploits a rich hierarchy of texture, pattern, and surfaceness. Every surface is refined. Most considerably, Dominique Perrault uses the highly industrial processes of metal fabricators to produce new materials of delicately woven stainless steel mesh. The subtle yet powerful surfaces of the woven metal mesh membranes reflect, capture, and filter light. Perrault uses these membranes and other skins as a means to frame, screen, obscure, and filter the experience and perceptions of the inhabitants, or more clearly, to reveal the energy.

On all scales, the architecture of Dominique Perrault is an architecture of clarity. His is an architecture of delicacy, purity, membrane, transparency, and reflectivity. The strategic purity of form allows for the minimal intrusion of the object and establishes a more
The Plym Distinguished Professorship

R. Alan Forrester
Director, School of Architecture, UIUC
Welcoming Address
Urbana-Champaign, March 10, 1998

The Plym Distinguished Professorship is a very special position that we have in the School of Architecture. It was made possible by a gift made to the School in 1981 by the late Mr. Lawrence J. Plym of Niles, Michigan. He was past president of the Kawneer Corporation and the director of a number of companies before he retired. As many of you know, Plym is a very prominent name in our School. Mr. Plym and his family have a very warm association with the University of Illinois and with our School.

The Plym Professorship is conferred on an architect who has a distinguished record of achievement and who can make a positive contribution to the enrichment of the professional education of students in the School. The past Plym professors have included Gunnar Birkerts, Paul Rudolph, Joseph Esherick, Minoru Takeyama, Edmund Bacon, Thom Mayne, and Carme Pinós, and we’re delighted this evening to have the eighth Plym, the latest Plym Professor, Dominique Perrault.

Dominique Perrault is a native of Clermont-Ferrand in France and graduated in 1978 with a diploma from the Ecole Nationale Supérieure des Beaux-Arts in Paris. The following year he obtained a higher diploma in town planning from the Ecole Nationale des Ponts et Chaussées in Paris, and in 1980 a post-graduate degree in history from the Ecole des Hautes Etudes en Sciences Sociales, also in Paris. Dominique Perrault opened his own office in 1981 and during the decade from 1981 to 1991 he won six national architectural design competitions, all of which resulted in constructed projects. Predominant among these was the College of Electrical Engineering and Electronics in the new town of Marne-le-Vallée near Paris, and the multi-story structure Hôtel Industriel Jean-Baptiste Berlier in the thirteenth arrondissement in Paris. Mr. Perrault’s own office today is located in this very striking building. In 1989 Dominique Perrault won the international competition for the Bibliothèque Nationale (National Library in France), which immediately established his international stature. This monumental project of immense complexity was completed in 1995 and opened to the public last year. In addition to the architectural work, Dominique Perrault designed many of the interior furnishings and details of this building. And in 1992 he won the international competition for the Olympic Velodrome and Swimming Complex in Berlin, and that same year he opened an office in that city. He has subsequently been invited to enter a number of competitions and consultations of the international architectural scene in Germany, Japan, Austria, Switzerland, and China. In 1997 he was invited as one of ten architects drawn from an international roster to compete for the extension project for the Museum of Modern Art in New York.

The quality of Dominique Perrault’s achievements has been recognized by many awards. Among those include the Lauréat of Young Architects by the Ministry of Housing in France in 1983; the Special Prize for the Departments of the Seine and Marne in 1987; first prize from the magazine Le Moniteur for the Hôtel Industriel Jean-Baptiste Berlier in 1990; the Grand Prix Nationale of Architecture in 1993; and in 1997, the Mies van de Rohe award for European Architecture, a most prestigious recognition for the Bibliothèque Nationale de France.

Please join me in welcoming Plym Professor Dominique Perrault for his lecture, entitled Morceaux Choisis.
I want to try to explain the theme of paradox in my architecture. Maybe my photographs could help illustrate this point. The name of this first project is Hôtel Industriel Jean-Baptiste Berlier. Hôtel Industriel is a very special concept. It is at one time a political concept and an economical concept. The client is the City of Paris, and the City of Paris wants to keep the project in Paris, not in a new town, not out in the suburbs, but a part of Paris proper. The site was very difficult, as it was located on the limit of Paris near the périphérique—the highway that encircles the city. On the périphérique, each day, 250,000 cars pass in front of this site. The answer for me was this: We wanted to use the movement, the light, and realities of contemporary life as a positive thing. Let me explain. The Hôtel Industriel is a glass box. Many architects in this competition gave an answer with a concrete box. As a result, their solutions were solid. Solidity is not exactly a good answer for contemporary architecture. I think it is more interesting to design with the intention of using the energy around the building as a resource. The site condition could be considered as having a very negative energy, but you could transfer this energy into a positive because it is in this very special landscape of contemporary urban reality. We built this building with a technique of structural glazing. In Paris, this was the first time for this kind of architecture. Every level is very open and free, as all the systems collect in the thin zone of the facade. I made my office seven years ago inside this building. I worked on the library in this building. We like it so much that we haven’t left. I don’t know if the City of Paris accepts the fact that we stay, because the building is only for industrial activities.
Another work near Paris, also for the City of Paris, is the water purification plant—Usine de Traitement des Eaux—for the Société Anonyme de Gestion des Eaux de Paris. Again, the question about the site is very important. This kind of factory traditionally holds maintenance spaces underground. You see only the pool on the ground level, and the people work underground without natural light. We tried to build another kind of building with a new relationship between the site and the factory with a larger cylindrical maintenance hall, or corridor, above the ground with natural light. Workers will use this space twenty-four hours every day. This transparent maintenance hall defines the street edge, which is a very important point of the project. The kind of activity inside is public and it is the city that pays for this activity. It’s very logical to see the activities of the water purification plant, which participates in the life of the city.
West of Paris, near Versailles, is another project at Saint-Germain-en-Laye. It is a transformation, restoration, and renovation of a manoir, or manor house, to form the Centre de Conférences Usinor. Usinor [then known as Usinor-Sacilor] is a very huge company that works with steel, stainless steel, and so on. The idea of this company was to transform this building into a conference center. This proved to be a very difficult problem, because they hoped to double the volume of the existing manoir. We tried to build no architecture, only landscape. We inserted a disk, like a compact-disk, or CD, around the existing manoir. This disk, which appears to be water surrounding the existing structure, is in fact glass. The installation of this glass disk with spaces below was somewhat of a paradox. The disk gives a new life for this manoir, which is not a very exciting building. But the people in this company liked the existing structure and wanted to protect this building. We have restored the entire manoir, created a very high staircase, and inserted this disk in glass. It was very complex work.

This project is like a manifesto about the question of architecture. Very often the architect wants to show and to present architecture. However, in this project it is exactly the opposite. We don’t want to see the new architecture. We want to see only the presence of the historical building and the landscape. The solution is more akin to the great movements in contemporary art like land art and minimalist art. The only difference between the art and architecture in this project was that it was much more complex to build. This was the first time in France where we built a flat glass roof. It was very interesting to imagine and design this part of this project.
Another project in the south of Paris was a project for the Grand Stade, or Stadium. In France this year you will have the World Cup in football. I won this competition when this project was to be in the south of Paris. After one month, the Prime Minister changed, and therefore the government changed. The new government decided to change the location of the site for the Grand Stadium project. They chose a new site in the north of Paris and we stayed with the project. It was quite a matter to imagine, a huge place in this part of town, because you have all elements of national contemporary network. You have the metro, the train, a big highway, the entrance to the city by this big highway, and now you will have a huge stadium with 85,000 seats, a training stadium, and incorporated within the square site plan (around one kilometer per side) you have nearly 10,000 parking places. We tried to organize a very special landscape, but it is already a landscape; it is like a small Central Park. We planned buildings such as hotels, offices, and housing, which act like a fence or limit around the square. We designed a variegated line pattern across the surface of the square.

One line represents streets, and the other line, parking spaces with trees. These alternating lines are the landscape strategy for the park. In the center of the landscape or square site, you have a strange network: the road and a circular park-like space, which houses the cloverleaf exit ramps inside.

For the Grand Stadium project we worked with H.O.K., the famous architecture firm in Kansas City. They work a lot with stadium programs. The main idea for the stadium was to create an island. After a football match, the people go out from the top ridge of this island and proceed down to the bottom of the parking level where they find their car and go home. It’s a quite a matter to integrate this monster into a city!
The building is a huge piece of glass that is four meters high, one hundred meters wide, and four or five hundred meters long.

The roof is like an optical instrument comprised of mirrors. One mirror is protecting the interior of the library from the sunshine, and another mirror introduces the sunshine inside the reading rooms.

Under this big piece of glass you have the reading rooms and around these reading rooms, with a very specific, complex, and technical setting, you have the stacks of books.

Another project was the competition for a new library in Kansai, near Osaka, in Japan.

Currently in Japan near this area they are making a huge development in the valley near Osaka, like an office park complex. They are destroying the hill and the landscape as they install a lot of companies and buildings working with high technology, and so on.

For our design solution, we have tried to build a new landscape, because you still have the hill and topography on this site. We have to find again this topography. So, I have designed a garden. In this garden, I have put in a very special roof. We enter the library by the roof.
This next project is perhaps the most important. It is an installation we did in Copenhagen last year. Copenhagen was the European Cultural Capital for 1996. The Copenhagen Contemporary Art Center invited twelve architects from all over the world. These architects worked on a very small project of three meters cubed. The question was this: How do you build a little housing in a park (like the kind of traditional house in Copenhagen for community, known as Kolonihaven)? We imagined four sheets of glass, like four walls. The main theme for this installation is about the issue of the separation of space in architecture. When you build a wall in architecture, you cut the relationships between two spaces. It is not a very good art. This project proposed to analyze the material of the wall and to dematerialize the wall. There is an interesting story about the construction of this piece. Three people began to work on the construction. One person was inside and two outside. The workers put up one sheet of glass, two sheets, and three sheets. For the fourth sheet, the person inside didn’t realize he was inside. When they put up the final glass sheet he was closed inside. And this little story, for me, is very important because the nature of the wall is the important content of the story. Imagine, if the same people constructed the same installation with four concrete walls. The person inside would escape because four walls in concrete is enclosed space. This project was really a manifesto about the nature of architecture, a new nature for architecture, or maybe a new relationship between nature and architecture. In Europe, it is a very important question because we do not have a lot of space like in America. In big cities in Europe, the urban fabric is a very dense. It is necessary to introduce now a new kind of nature in the city and a new relation between inside and outside in a building.
About this theme, we have built a huge project in Berlin. Berlin will host the Olympic games in 2000. I won an international competition for the swimming pool and the Velodrome. The Velodrome is circular and the swimming pool is rectangular. You understand that the form is not very important and is very simple, but it was very important in how we could build a huge building in a district that needs to develop a new relation between the existing site conditions. Very near the site, you have the large tower of Alexander-Platz (about two kilometers away). The project is situated along a very important axis in Berlin, Landsberger Allee. Across the avenue from this project is a rapid transit train line. Also near the site, you have a very different typology of housing and building going on. The idea for our solution was to build a new building that simultaneously proposes a new public space. This building by nature is a very public building. The main concept of this project is about the disappearance of the building into the landscape. It is not about its literal absence because of the new presence of the building solution. But, the building is not a building. It is only a landscape and it is a direction and a political answer about another building in Berlin. You remember, in 1936 Berlin organized the Olympic games with Hitler? For the next Olympic games, we wanted to build a sporting event hall, but a kind of sporting event hall that would be impossible to catch by the political people.

We imagined building an orchard. The orchard has 400 apple trees. In the center of this orchard, we inserted...
interesting material, as we don’t need a lot of steel because it is a fabric; it has a lot of holes. The metallic mesh is very transparent and very light, and not very expensive. We applied this material like curtains or carpets on the roof. The idea for the landscape and the buildings was quite like two pools, two metallic pools in the orchard. When you walk around this roof it is very funny and very poetic also. There are a lot of reflections on the roof from the sun and the material, which creates something like a mirage. At night the light from the inside catches up on the roof plane. When you are on the ground plane, your eye is exactly on the level of the roof. The roof is totally flat. When you walk around you see only light, shining light if you will. One enters into the building by going down a ramp or by the staircase. It is a very special feeling because the city disappears when you go down and the building becomes more visible.

It was a complex issue for building the roof, because the surface on the top of the roof is horizontal and the undersurface of the roof structure is also horizontal. We worked with Ove Arup, the English engineering firm, about this steel frame structure for the roof. The weight of the two steel frames for the Velodrome and the swimming pool is equal to the weight of the Eiffel Tower in Paris.

On the top you have the orchard and below you have two halls, but you also have two streets. One street is a pedestrian street, not exactly at the same level but very close to the level of the railway station. When you are in the swimming pool you can see the train because we have built a new station here. As you walk around the project you change the landscape very quickly; it is like a romantic landscape. You go down, you go underneath, and you discover this street with these columns and the train.

The detail joining the cloth-like metal fabrics on the exterior is like a seam. This is another idea about the architecture. This is a very simple detail, but we worked maybe six or nine months on this detail because the company said it is necessary to have another piece here, another piece there; it was a highly complex process. When we worked on the prototype, we tried this idea for the detail. It was very simple solution for the installation, for the construction, and it was a good solution.
The last project is the Bibliothèque Nationale in Paris. This triangular shaped site is a new urban project of the city. It is a huge site in Paris, but it is the last site for a large scale new urban development in Paris. After developing this area, Paris is finished. You could build some buildings, but not very important urban development.

The specificity of this site is the railway network. Near the site is another very important district on this hill, and we have a little topography on the side, away from the river. This district is totally separate from the river. There are only three bridges to cross the river near this district. This existing condition is very important to understand the project of the library. The project of the library is the most important project of François Mitterand. There was an additional complexity between the mayor of Paris, Jacques Chirac (now the President), and the former President, François Mitterand.
37. Bibliothèque Nationale de France, research and garden level

Why? Because François Mitterrand wanted to build a new national library and Jacques Chirac, the mayor, wanted to begin developing this part of Paris. These two people in political discussion were employed together to build the library. With the library comes a foundation act from the new district. It was necessary to have this act to start a new district in Paris. This was a very important issue, because if the mayor did not want the library, the library never could be built. The main concept of the library is not the concept of the building. It is a concept of space, empty space, a new public space. The first contact you have with the library is the public esplanade. It is open in every direction. You have a terrace on the Seine with views across the river, where there is another garden on the edge of the water. This is a very large public space in this part of Paris. With the urban design of the new district, you’ll find a lot of streets perpendicular to the river to introduce an eastward connection between the old district and the river through the new district.

There are one thousand housing units built near the library, not exactly social housing, but quite a lot. The Gare d’Austerlitz is nearby, as well as a very important avenue, which acts like a spinal cord of this urban design. Below this avenue you have the railway and the train.

The esplanade on the top level of the library is a public space, open day and night. Two ramps on either side descend down to the entrances of the library. One entrance is east, one west. As you descend, you are lowering yourself into the forest in the center space. The art of the library is this piece of forest. The building has a very rationalist and minimalist design. In the center, the presence of nature exists. This nature is not a park. It is not a garden. It is really a piece of wild forest. We hand-picked trees, one after the other in the forest. The trees that we selected in this forest we transplanted into the center space of the library. To build this kind of forest, transplanting such large trees, was a very significant endeavor.

In this building there are three levels. The first level is the esplanade, a public level. You have another lower level below the esplanade. This level is a public level with the entrances, main lobby, auditorium, and public reading room. And you have a third level below, on the floor of the garden. This lowest level is a research level. When you are on the level of the esplanade you are on the top and above the trees. In the main level of the library, you are in the leaves of the trees. In the third

38. Context and growth around Bibliothèque Nationale de France
level below, you are below the trees. The forest gives the identity of each level. When you look at the library from the center of Paris, it is like a block, a big block. When you approach the building, the sky is framed by four towers. This building is like paradox because you see only a small part of the function when you approach. The major part of the function such as the reading room, stacks, and so on is situated underground along the forest. When you go down to use the library or continue down to use the research room, the tower disappears and you see only the trees in the forest.

We also designed the furniture, the device for air conditioning, the chairs, the reading lamps, the tables, and so on. It took us three years to realize this building. Maybe two thousand people work on this site.

It was a very great adventure, because I worked simultaneously at all scales: the urban planning and design, the architecture, the furniture, the lighting, and so on. It was a great opportunity to have designed, in the same hand, all work at various scales. Now, for my office my work is not exactly the same situation, because we do not have a lot of projects in France, but we have work in Europe: Austria, Spain, Germany, and Luxembourg. We now have a very important project in Luxembourg after winning a competition for building the European Court of Justice. The project is a huge extension of an existing court of justice in Luxembourg. But we have a very different kind of work because I have another office in Berlin, and at the end of this year I want to open a new office in Luxembourg.

Step by step we organize a network between our different offices in Europe. It is a rapid change from the library project where we had everybody in the same place and the work very near in my own country. Now, we have several projects with several offices with several architects like partners in several countries. The most interesting aspect of this expansion is the opportunity to involve human relationships and learn about each culture for opening my connections to the diversity of the world. Thank you.
41. Reading room

42. Bookstacks, screen wall

43. Interior, Bibliothèque Nationale de France

44. Interior lighting along corridor
Landscape and city—El Torrent de la Batllòria

Oriol Bohigas
Partner, MBM Arquitectes
Former Head, City of Barcelona Urban Planning Department (1980-1984)

In any discussion of the first phases of Dominique Perrault’s project for the Torrent de la Batllòria sports complex in Badalona, in the outskirts of Barcelona, the topics that can be touched on are many. We could start, for example, in exclusively architectural terms by analyzing its critical reinterpretation of the avant-gardes and its faithfulness to the revolutionary principles (both functional and figurative) of the Modern Movement. Or we could start with the expressive use of the rationality of construction as an essential factor in the design concept. Or with the precise functional order in a project in which the criteria of access and movement within the premises are extremely important, and in which flexibility of use ought neither to alter conceptual unity or to get trapped in the contradiction of different scales for varied, successive, or simultaneous uses. But the topic that most interests me is Perrault’s highly intelligent way of integrating his project in the urban surroundings and of resolving the frequent dichotomy between open space and built space, between landscape interruption and urban continuity. The siting of large parks adjacent to urban centers—and even in their more or less vital peripheries—is not as simple as it is often taken to be; nor can it be resolved by the ingenuous conviction that any green
landscape whatsoever resolves all problems. On the one hand, there is the evident, or even trite, need for what are usually called "green lungs" in the midst of our dense cities. On the other, however, the dangers are obvious of a fragmentation of urban activities in a void that emerges as a non-urban space, as a suppression of the urban fabric, as a dangerously isolated enclave. The wish to enhance a feeling of comfort can sometimes become the starting point of a depression—and even a degeneration—as Jane Jacobs already observed years ago when analyzing the edges of large parks of many American cities.

The Torrent de la Batllòria, given its strategic situation and above all its topography, has obvious potential as a "green lung." But at the same time it has to fulfill an extremely important function: to affirm a certain urban continuity or, at least, a continuity of activities. This duality—with its various seemingly contradictory aspects—has been very clearly approached in Perrault's design by emphasizing three highly successful formal and functional characteristics. The first is the functional purpose: a set of sports facilities that emphasize not only the formative and competitive parameters of sport but also its more recreational and popular aspects. Activities with tremendous collective potential can, for all that, coexist with more individualized spaces, with landscapes that are counterpoised to the vital density of the city. The second results from enormous architectural expertise: the formalization of the project complex, not as a new built mass, but as a new topography that rests on—yet deliberately corrects—the existing topography. The way of siting the football stadium in a crater-like depression; the warped surfaces of the lightweight, vibrant, almost aleatory roof; the relationship between the sports center building and the access areas; and, above all, the layout of the avenues, which have their own order yet also imperceptibly emanate out into a less artificial landscape, are some of the most remarkable aspects of the design. Lastly, the third, perhaps most outstanding, characteristic: the clever way the link is made with the urban and suburban context. Geometrically and functionally, the city is seamlessly connected to the El Torrent landscape. It adapts to the area's existing road system, the topography of the landscape, and the new activities, and it respects a number of vantage points that act as a reference to the community.

For all these reasons, I am sure that this design by Perrault will be a magnificent contribution to the civic future of Badalona. And it will certainly also be a highly useful starting point for any future discussion regarding the role urban parks can have within the context of a dense city.
Everything happened naturally and spontaneously. In May 1997 the School of Architecture celebrated the twenty-fifth anniversary of its Study Abroad Program in Versailles with an important week-long event—the Versailles Réunion—that included lectures, exhibitions of students’ work, and many other activities. A few months earlier, the most important of François Mitterand’s Grands Projets had been officially inaugurated: the Bibliothèque Nationale de France, designed by Dominique Perrault. Therefore, it was natural that Dominique Perrault, one of the most prominent of France’s young generation of architects, be invited to deliver the “Versailles Réunion Distinguished Lecture in Architecture,” the most important event of that special week of celebrations.

At the end of the lecture, during a rather informal and spontaneous conversation, the Director of the School of Architecture invited Dominique Perrault to be the 1998 Plym Distinguished Professor of Architecture at the University of Illinois at Urbana-Champaign. It was again natural that his participation as Plym Professor included interventions in courses and other activities of the Versailles Program. Of all of these interactions, the most memorable was the day he dedicated to leading a tour of three of his Parisian buildings.

The tour began at his own office, located in the Hôtel Industriel Berlier, a building that he had designed in the late 1980s. There, students listened to a brief presentation of the office’s current projects and wandered around the architect’s universe of small- and large-scale models, drawings, building samples, and test-prototypes.

The second stop in the tour was at the Bibliothèque Nationale de France. Guided by Perrault himself, the fifty students climbed up the steps from the Quai François Mauriac and reached the esplanade. There, overlooking the garden and framed by the famous four towers, Dominique Perrault described the overall urban strategy of his project and the importance of the central garden.

A tour of the interior followed. Students visited the already inaugurated public library level—*haut-de-jardin*—and later (after descending through a contemporary version of a Piranesian space that appeared as an unconscious reference to Jorge L. Borges’ labyrinths) reached the *rez-de-jardin*, where the limited access research reading rooms are located in direct relationship to the “sacred,” inaccessible garden. The references to Piranesi and Borges were left behind, for, in the public and research areas, the building’s ar-
architecture followed an implacable logic that Perrault described as a series of concentric layers, not unlike the structure of an onion, where each layer has a very clear and distinct function. The numerous questions about choice of materials and library systems demonstrated the students' joy and interest in visiting one of the most globally important end-of-the-century buildings.

In the afternoon, the tour continued with a visit to the other library, the Cité Technique du Livre, located in the banlieu of Paris. At first sight, students perceived it as being very different from the Bibliothèque Nationale de France. However, as they visited it, they realized that the logic of its conception, design, and detailing was as unchanging as that of the Bibliothèque Nationale. Outside, the elegant lighting posts that the architect had already used on the esplanade of the Bibliothèque Nationale recalled that the two buildings were more related than they had first seemed.

As the tour ended, students spontaneously invited Dominique for a group photo. His architecture provided the perfect background for a memorable souvenir.
Situated on the left bank of the Seine, the new national library stands as the newest of the grand monumental projects lining the river. As a dominant landmark, it is on par with the Eiffel Tower, Louvre, etc. — as a functional piece of architecture, it is, I think, superior to most of these other monuments...
We felt lucky. Sixteen fifth-year graduate students had ended up in one of two sought-after design studios for the spring of 1998. For a few weeks we would work with the new Plym Professor, the young French architect whose bold design for the Bibliothèque Nationale de France had made him famous before he turned 35. In our studio environment, Dominique was opinionated and proud of his work; however, he was not a snobbish taskmaster. He was in fact a relaxed, jovial teacher who was very interested in our ideas.

dicular to the Seine. This strategy afforded views of and movement toward the river. Each of us chose one of the resulting strips of land and was instructed to define its functions and to design spaces to accommodate them.

As we stood around our large site model and discussed our studies during the next couple of weeks, Perrault emphasized that it was critical for each of us to formulate a clear concept and express it in our slice of Paris. He said that as future architects we must take a stand and we must bring personal convictions about the city and its potential to such a project. If we failed to do so, he assured us, our work could not succeed because it would lack a meaningful basis. Our initial gestures on each site showed our attempts to articulate our per-
sonal visions. There were university buildings and student residences that could benefit from the proximity to the Bibliothèque, commercial structures such as stores and theaters, and an office tower whose height established a dialogue with the tall library stacks. We began by establishing a few standards that would be maintained. These standards included a clear pedestrian path from the metro stop to the library, a rational grid of streets, and a respect for the vertical edge that the buildings would form along a riverside park. As we progressed, these rules were violated to form unique design elements: One street was closed to open up a park in the interior of a block of student housing, another street curved around an outdoor movie screen, and one pocket of green space blurred the line between city and nature along the Seine’s bank.

We turned from our particular sites to adjacent ones, working to create buildings and outdoor spaces that maintained their identities while interfacing with their neighbors. The importance of the primary theme of this project became apparent. Dominique had predicted that our schematic plans would provide richer spaces than those currently proposed because they would not be the result of a single mind. The city, he said, should be constructed as *bricolage*; it is a living body that grows as parts that respond to other parts. This was a lesson on the morphology of the urban environment.
Our second project was also about parts relating to other parts, as well as to the whole. Where the project near the Bibliothèque concerned the very real city of Paris, this new project posed the problem of a hypothetical vertical city—a mile-high tower. Sixteen students were each to design a section of this mile-high skyscraper. Certain shared necessities such as structure, vertical circulation, and service cores were the agreed-upon standards. Otherwise, each section could be very different from the others. Since this project was more hypothetical in nature than the project for the library district we took even more liberties. Eventually, we became less concerned with the functional elements and began to test conceptual notions of the potentials for a high rise building. Large scale gardens, an amusement park, and other, similarly daring ideas were incorporated into the upper reaches of the tower. Meditation chambers were hung from its exterior while an amorphous bubble-like enclosure surrounded part of the interior space.

In the high-rise, as in the urban plan, Dominique encouraged us to think and to work very quickly without dwelling on decisions. He implored us to keep the freshness of our ideas. "You must be flexible," he said, "Always be able to reverse in your mind horizontal versus vertical, solid versus void, opaque versus transparent, and so on. You should be able to dialogue between [aesthetic] design and function."

This creative agility, coupled with a confident sense of personal values, was the overriding message that Dominique Perrault sought to leave with us. A well-rooted idea of what should be done and flexibility about how to do it—these are the lessons that he stressed every time he spoke with us. In response to questions about our design intentions, Dominique offered his usual response and most-repeated advice to those of us who spent a few weeks with him. He answered our questions with a liberating, sometimes frustrating, inherently possibility-laden question of his own. It is one we have learned to ask ourselves: Why not?
Quick and spontaneous, brazen and foreign. These qualities were not weaknesses, according to Dominique Perrault, but an invitation to step far away from any preconceived notions of urban planning and seize the design opportunity presented at the edge of this new millennium. Perrault emphasized the unique position in which we stand as designers entering this new age. He allowed us to realize that even in our short design exercises, we can alter for the better the historically conforming process of city design. Dominique Perrault gave us the ability to quickly realize an opportunity to change the fabric and begin a move toward modern urban planning within the limits of a very wonderful, respected Parisian fabric. We began to see the Parisian urban fabric with a new, hungry foresight.

It was a unique experience having personal direction and inspiration from this forward-thinking, leading international architect. Plym Professor Dominique Perrault presented two challenges to our design studios: city planning near the recently completed Bibliothèque Nationale de France, and a mile-high tower on a hypothetical site.

The first project lasted two weeks and involved an urban charrette for the development of two large tracts of land immediately north and south of Perrault’s Bibliothèque in Paris. The intention of this first exercise was to find a quick and spontaneous urban design solution. Each student chose a finger representing one seventh of the land permitted for this design exploration. As plan-inscribed tracts, these fingers of land lay like slices of the topography foreign to the irregular configuration in the historic Parisian plan. It took the lack of restraint in our charrette format to appreciate this opportunity. Designing with a specific urban program, we decided to focus the programmatic energy into a proposal for a university to occupy the site and surrounding infill areas of Gare d’Austerlitz. Such programmed spaces were determined by each student at will. Housing, classroom, and administrative building towers; dining; and landscaping were considered, as well as the creation of automobile thoroughfares and pedestrian zones. Other formal decisions were governed by each individual’s intuitive design response to the north-south alignment, relationship to the streets, and library and pedestrian zones nearby. As the charrette progressed, we were able to see unique solutions to the Parisian fabric meld with the need for a new gridded solution in the progressive part of the twelfth arrondissement. We were less cautious and more adventurous, a rare treat given the many enamored opinions of historic Paris, which we have only visited or studied from a distance.

The second design charrette challenged the vertical urban scale. Our mission for sixteen students was to create a mile-high tower. Spontaneity was very important given the short time frame of this exercise and the fragmentation of this mile-high exploration into sixteen
equal segments of ten stories each. Whereas we had worked together during the first charrette, here we were independent in our designs, only needing to justify the general function of each segment and its approximate location in the mile scheme. Some designs reflected urban parks. Some resembled orbital pods. Some were traditional and geometric; others schizophrenic as the realm of architecture might be in the futuristic era of such an aggressive construction. This charrette was not based in today’s reality but a futuristic ideal, piecing design into the possibility of a charismatic dialogue between urban design and architecture.

Though the designs were done quickly, and decisions were made instantaneously, we had an opportunity to experiment with the possibility of architecture, history, and urbanism working together. The realization of this opportunity might still be an awakening moment in the future of all of Perrault’s students as we reflect on the forward thinking of this promising Parisian architect.

63. Constructing the tower

64. Final levels
Charrette with Perrault

Geoff Campbell
Undergraduate Student, School of Architecture, UIUC

Thomas Watkin
Undergraduate Exchange Student from l'Ecole d'Architecture de Versailles

April 6, 1998 7:30 PM Plym Auditorium

Charrette: between concept and context

Dominique Perrault
and Professor Kevin R. Klinger

silo

home
The intention of this short charrette was to offer students an opportunity to interact with Perrault while exploring regional architectural qualities of central Illinois. The idea of architecture was encouraged as a conceptual departure, and the typology of the home became the central focus of investigation. A typical home plan from a stock set of supermarket build-your-own-home magazines was the launching pad for the investigation. The students ventured out into the agriculturally dominated landscape outside of Urbana-Champaign. They were charged with locating and analyzing a grain silo, corn crib, or similar agricultural building. Treating the structure as a found object, they were to insert the specific program set out in a selected build-your-own-home magazine.

Context: The regional character of central Illinois; the pure forms of the agricultural structures, silhouetted against the vast, open, rigid patterns of agricultural production; the relative flatness.

Concept: The notion of home and dwelling: What are our needs for living? What arrangements are necessary for contemporary living? Students were challenged to critique the iconic tendencies of “home” in the mass cultural desire for an image-based pastiche of quaint “architectural” references, and to reconsider the underlying design impetus for the creation of a dwelling.

The charrette, though brief, was an attempt to begin a critical design process that simultaneously considers site and idea, real and abstract, collage and ideal. In this charrette, architectural design decisions lay somewhere between concept and context.
Interview with Dominique

Kevin R. Klinger

Paris, April 10, 1999

(KK): You frequently refer to your projects as landscapes. In some cases, the architecture is more about the place or the landscape than the actual building itself. How important is the site in your design thinking?

(DP): For me the main question about architecture is the capacity of architecture to separate one site into two sites when you build a wall. The first act of architecture is to separate. It is a paradox, because architecture is very comfortable for people—it protects them from the rain, wind, cold, heat, and so on. But at the same time you have another dimension of architecture. It is separation. When you have a field, for example, and you build a wall in the middle of this field, you separate it into two parts. The question for me has been, how could I build a wall with a quality that protects and yet does not separate? The nature of the choice about the material of the wall is very important. When we built the project in Copenhagen, it was a very important gesture for us. We put sheets of glass around a tree. Although this tree stays in the same landscape—the same environment with the other trees—it is different because it is surrounded by walls of glass.

The question about the materials of this wall is very important. I think that contemporary architecture should be not very aggressive or authoritarian with the instrument of power. When you build a wall, you have the power to separate one space into two spaces, and this kind of power is for me an ideological question for an architect. Because it is necessary to build a wall, but at the same time it is necessary to build a building quickly with a relationship with the environment.

(KK): Dematerialization of the wall surface happens through many of your projects, whether using transparency with glass or various types of screening devices...

(DP): Yes, and absence also...

(KK): On a larger scale—as an urban design strategy—transparency seems to be a very significant issue for you.

(DP): Yes, but not each time. Transparency is a way. But the work and experimentation with the possibility of building the absence of a building is also very interesting. The material with the most transparency is the disappearance of the building. When you are able to organize the presence of a building, while at the same time making part of the building disappear, you give a larger presence to the landscape.

The presence of the building is relative. When you build a huge building, and you build also a public building—a huge public building—for me it is a global question. Because the building is public, the consequence is that the area around it should be open. The problem is, when you build a big building, it should give something back to the city. This something is the possibility to have a new public space. The presence of the building is very important; the exchange is a new public space or place for the city. For example, at the library in Paris you have the four towers, but the main spaces of the library disappear and we give back a big esplanade.

In Berlin, it is the end of the past, if you will, because the entire building disappears, and we built only a landscape. Why did we build only a landscape? Because the existing landscape is not very exciting. It is a very banal suburb of Berlin; it is not a beautiful landscape that exists. But this landscape is in progress. How could you go with this process? The process is the development of the city. If you build a big building, you could stop this process. In Berlin, the idea was to build on a landscape and organize the disappearance of the building. We wanted to create it like a magnet. This new public space, or orchard, is a magnet between four districts. It is not like a building, because a building forces you to turn around:
You don't go through, you turn around like a big block. The feeling in this building is exactly the opposite, because people go through the public space, and they then discover the buildings. The buildings are not like a limit, a fence if you want, in the movement of the people. You could give a more important fluidity. The flow of the people is the base of the life of the city. The life of the city is not to stay inside your apartment; the life of the city is to go in the direction of the other people. This is urban life. Urban life is movement.

This kind of experience and solution for architecture is not a global rule. It is like a laboratory. It is necessary to investigate the common place. For example, a building is very solid. Why? A monument is very closed. Why? A sporting arena is very huge and for a huge group of people with no poetry. Why? ...

(KK): For the event...

(DP): Yes, just for the event. Why? When this kind of complex is not operating, the district is dead. When the complex is active, the district is too full. In Berlin, with the orchard, at any time you have people walking through, and when you have events you have a large amount of people in a very huge public space, and they walk also. For me the question is, why we are sure about some situation? I think we could try to test to see if these kind of commonplace assumptions are true or not. This is the base of the work. It is a laboratory. We research.

[Dominiqwe points to two metal panels in his office.]

The difference between this fine stainless steel mesh and this stainless steel mirror is very great. The stainless steel mesh shines more than the mirror, which is curious. One would think the mirror would shine more than the mesh. In fact, this is not true. The stainless steel mesh develops contrast with the light. Sometimes the mesh shines very brightly, while at other times it does not. The mirror is very different, because the specificity of this material is its depth. It is very, very deep. When you have a lot of light, it shines very deeply. With the mesh, the light shines directly on the surface. The mesh material is more alive. It is interesting to test the relationships with the material and the light. It is exactly the same attitude we would use for building with glass. Light on glass produces very different effects. Sometimes it is very transparent, sometimes absolutely opaque. The fundamental difference between a concrete box and a glass box is the feeling of the presence of the box. A concrete box has a very heavy presence. The building is very solid and the weight of the building is huge. With a glass box, it is not the same thing; the building is lighter. The relationships and the views through the glass walls are more dynamic and change with the light. This is absolutely a very important difference.

Why don't we work with the idea of the abstract in architecture? Sure, architecture is not abstract for everybody, but in fact, the concept and some statement about the architecture could be abstract. It is not necessary to have relationships that are very narrative between all of the elements in a building. For example, when Le Corbusier and the whole modern movement developed the plan libre, or free plan, it was the first step toward the abstract feeling of architecture. Glass as a material investigation could expand this research about abstraction in architecture.

I think it is exactly the same difference you had at the beginning of the nineteenth century between the modern movement and the art deco movement. You have a clash and afterward a gap between the narrative vision and the abstract vision. The Berlin project for me is like the famous painting White on White, by Kazimir Malevich. What stays about the painting when the painting disappears? No painting, but it is a painting. No architecture—it is a landscape—but it is an architecture. This work on the limits of the field of architecture is very interesting. Because you touch the limits of the fields of art, science, philosophy, psychology, sociology, economics, and so on. Architecture is not the center, but the point of meeting for all these fields. You grasp all fields.

(KK): Your architecture works on many levels—from the initial grand urban gesture to the surfaceness to one person's perception, standing in one spot and looking through a metal fabric screen. Also, an important quality of your work is your ability to design at many different
scales, considering simultaneously the furniture, the fixtures, the structural systems, on up to the urban issues. How do you manage these issues simultaneously?

(DP): It is impossible for me to separate these issues. You could start with the design of a chair and you could finish with the design of an urban site. You could design in the opposite direction as well. It is not the idea of one element in a wall; it is like you are in a book, or better, a movie. You start the movie in an airport, and afterwards you go into a city, and after that you go into a room, and after this room you go into your bedroom, then into your bed, your car, the metro, the country, a field, yes. For me architecture is the same thing. You could start a design with a chair, and afterward you could design around this chair, and then you could go to another place and create this feeling. It is a very interactive approach between all things: the main scale, the huge scale, and the small scale. This for me is absolutely the same thing. It is not the same thing in the context; it is not the same thing when you use the architecture. But when you think about the project, it is the same thing. [Laughing.] Thinking and using are not the same thing.

(KK): When you begin a project with a specific site with given boundaries, for you, perceptually at least, what do you perceive as the limits of the site? And how do you begin to investigate site conditions?

(DP): If I go first to the site, the quality, the energy, and the situation of the site trouble me. If the site is beautiful, I think that the site is beautiful, and I do not want to touch it. If the site is ugly, I think the site is ugly and is too difficult, and so I do not want to touch it. It is terrible for me if I go first to the site. Instead, I think about the program, and the idea of the program, and the theme of the project, and all information about the project, including who the client is, and the wife of the client, and the cars and dogs of the client. I have some questions about the life of the site, not specifically about the site. After all of this, I begin with an idea. I do not know if it is a good idea. It is an idea, or perhaps two or three. This idea is not very present, the idea is a feeling. Afterwards, I go with this idea, with this sentiment to the site. I take a walk on the site with my idea. I could have a challenge with the site, because I might think, well, this idea is not good. I could change. I could keep one part of the idea and change another part. Or I could think, this idea is not bad; I could continue, but this is an area to introduce something or another. The work and the process then start. It is like a dialogue between the mind and the site—a dialogue between the concept and the context. The meeting point between these two—the intellectual vision and the existing conditions, the real conditions—this is a good meeting point.

(KK): One last question for students in architecture. If you could share one thing that was important for someone to prepare for a future in architecture, what would that be?

(DP): The most important thing to do is to build what you think. As a student you have the chance to attain this goal. It is necessary to train hard to achieve this goal. If you think something, you must design what you think, exactly. No fakes. No lies.

I think the best education for students is to try day after day, week after week, year after year to design exactly what they think. It is necessary to have a lot of patience and tenacity. For me, this is the foundation to accumulate and develop an architectural culture. You could prepare by absorbing architectural culture. This is no problem if you write a book, or if you are the curator of a museum. But if you would like to be an architect, it is not necessary to absorb the culture of architecture first. It is necessary to find exactly what you can do, to find your capacity, to find your competence or talent. Each person has a talent. It is necessary to find this talent. Afterward, you develop this talent in tandem with absorbing the culture. The culture alone, for me, is absolutely inefficient for an architect.

(KK): Do you think students need to learn how to make things?

(DP): Yes, but I think it is most important to make a lot of projects. You make one project, and immediately following, you make another one. You also need to make them very, very fast. It is absolutely necessary to design
very easily and fast. It is not necessary to design one, two, and three times a column. Afterward, you change the project and you design another column. Okay. It is better, but it is not very good. And so on. I think an architect's training is similar to that of a pianist. You could learn the musical culture. It is very good if you want to become a theater director or an opera director, and for discussions about music over dinner. It is very nice to have dinner with these kinds of people. But a musician must commit to a lot of training. America is the country of body-building and fitness training. This is the way for students of architecture: They must do a lot of architectural body-building. We must imagine some type of machine or engine, like a body-building machine for architects, which makes project, project, project, project. After this you could read and study the culture of architecture, because it would immediately translate into your language, into your idea, into your design. The problem in the schools of architecture everywhere in the world is that the students start and learn the culture of architecture, and then after two years they think that they are architects. This is crazy. Five years in school and another ten years in practice—at the end of this time they could become architects. It is a very long process to become an architect.

(KK): Thank you for your opinions, for sharing the ideas behind your work, and for serving as the 1998 Plym Distinguished Professor in Architecture with the University of Illinois at Urbana-Champaign School of Architecture.

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