Jürg Conzett | José Morales & Sara de Giles | Tatiana Bilbao | Wojciech Kotecki

NOVEMBER TALKS 2018

Think Tank Architecture

PREFACE

Jürg Conzett from Chur, José Morales and Sara de Giles from Seville, Tatiana Bilbao from Mexico City and Wojciech Kotecki from Warsaw kindly accepted our invitation to present their work and to join our discussions as part of the November Talks 2018 – Think Tank Architecture in Graz. Both the audience and we, the organizers were certainly not left wanting, on the contrary, we were allowed to listen in on impressive presentations and in-depth discussions, really evenings to be remembered.

By yet again inviting a 'non-architect,' we have continued to address an additional aspect of this year's Think Tank Architecture. Jürg Conzett, internationally renowned structural engineer, has blurred the lines between structural engineers and architects. He has impressively demonstrated how he envisions and designs structures architecturally, later refining and implementing them as an engineer.

We met Sara de Giles and José Morales at a point when a fundamental evolution seems to have emerged in their architectural design, from a structuralist to a volume-focused approach, regardless of their basic attitude of providing each project with the highest possible publicity.

Tatiana Bilbao has come up with an incredibly exciting design method focused on questioning in order to develop an almost authorless architecture that ultimately, though contradictory, bears her signature. She certainly introduced the audience in Graz to one of the most significant architectural attitudes at present that will soon gain global significance.

Prefabricated construction in Poland in general and residential construction in particular has been stigmatized since the communist era for a variety of reasons. Wojciech Kotecki has taken on the task of bringing about a paradigm shift, not only in appearance, but also in production technology. This has resulted in the development of an attitude that stands out significantly in the context of Poland's post-communist world of architecture. I am certain that he is someone to watch out for, both now and in the future.

Organized by the Institute of Architecture Technology IAT, November Talks 2019 could only be carried out with the active support of the IAT staff Tomasz Burghardt, Christoph Haidacher, Marisol Vidal and Claudia Volberg. Thank you very much! My thanks also go to Sorana Radulescu for the transcription and graphics, and further to the Sto Foundation, without whose substantial support evenings such as these would not be possible.

Any additional insight missing from this preface can be found on the following pages, including short versions of the guest lectures and long versions of the discussions – meanwhile an unmistakable key feature of these Talks in the context of an international architectural discourse.

Enjoy!

Roger Riewe

VORWORT

Jürg Conzett, Chur, José Morales und Sara de Giles, Sevilla, Tatiana Bilbao, Mexico Stadt und Wojciech Kotecki, Warschau, haben unserer Einladung folge gleistet, in Graz im Rahmen der November Talks 2018 – Think Tank Architecture vorzutragen und sich einer anschließenden Diskussion zu stellen. Wir als Veranstalter und auch das Publikum wurden nicht enttäuscht, im Gegenteil, wir durften Zeugen werden, von beeindruckenden Präsentationen und tiefschürfenden Diskussionen, Abende, die in Erinnerung bleiben werden.

Auch dieses Jahr haben wir wieder unser Think Tank Architecture um eine Facette erweitert, indem wir wieder einen „Nicht-Architekten“ eingeladen haben. Jürg Conzett, international renommierter Tragwerksplaner, hat die Grenzen zwischen Tragwerksplanern und Architekten verschwimmen lassen und in beeindruckender Weise dargelegt, wie er Tragwerke architektonisch denkt und konzipiert und sie dann ingenieursmäßig verfeinert und umsetzt.

Sara de Giles und José Morales haben wir in einem Moment kennengelernt, in dem sich offenbar eine fundamentale Weiterentwicklung in ihrer architektonischen Entwurfsfindung zeigt, von einem strukturalistischen hin zu einem Volumen fokussierten Ansatz unabhängig von ihrer grundlegenden Haltung, jedes Projekt mit einem Höchstmaß an Öffentlichkeit zu versehen.

Tatiana Bilbao hat eine ungemein spannende Entwurfsmethode des Fragens vorgestellt um hiermit eine nahezu autorenlose Architektur zu entwickeln, die schlussendlich, auch wenn es widersprüchlich erscheint, ihre Handschrift trägt. Das Grazer Publikum hat mit ihr sicherlich einer der ganz wichtigen Architekturhaltungen kennengelernt, die in naher Zukunft globale Bedeutung erlangen werden.

Der Fertigteilbau in Polen im Allgemeinen wie auch im Wohnbau im Besonderen ist seit der kommunistischen Ära aus verschiedensten Gründen stigmatisiert. Wojciech Kotecki hat sich der Aufgabe angenommen, hier einen Paradigmenwechsel herbeizuführen, nicht nur in der Anmutung, sondern auch in der Produktionstechnologie. Hieraus hat sich eine Haltung entwickelt, die im Kontext einer postkommunistischen Architekturwelt in Polen signifikant heraussticht. Wir werden noch viel von ihm hören und sehen, da bin ich mir sicher.

Die November Talks 2019 konnte vom IAT, dem Institut für Architekturtechnologie nur durchgeführt werden mit der tatkräftigen Unterstützung von dem IAT Staff, von Tomasz Burghardt, Christoph Haidacher, Marisol Vidal und Claudia Volberg. Herzlichen Dank! Mein Dank gilt auch Sorana Radulescu für Transkription und Graphik und insbesondere der Sto-Stiftung, ohne deren substantielle Unterstützung Abende wie diese nicht durchführbar wären.

Das, was in diesem kurzen Vorwort nicht dargestellt werden konnte, finden Sie auf den nächsten Seiten mit einer Kurzfassung der Vorträge unsere Gäste und einer Langfassung der Diskussionen, die im Kontext eines internationalen Architekturdiskurses mittlerweile ein unverwechselbares Alleinstellungsmerkmal darstellen.

Viel Spaß beim umblättern! Roger Riewe

JÜRG CONZETT
Conzett Bronzini Partner AG

JOSÉ MORALES & SARA DE GILES
MGM Morales de Giles Arquitectos

TATIANA BILBAO
Tatiana Bilbao ESTUDIO

WOJCIECH KOTECKI
BBGK Architekci

JÜRG CONZETT

NOVEMBER 05, 2018

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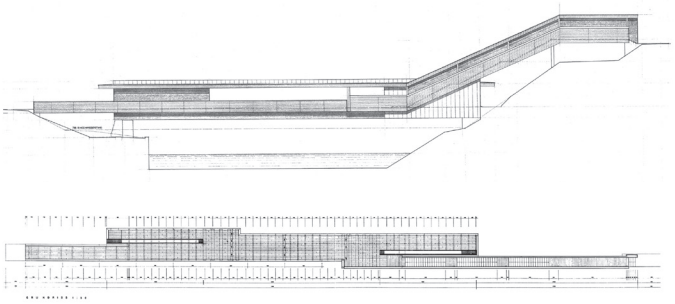
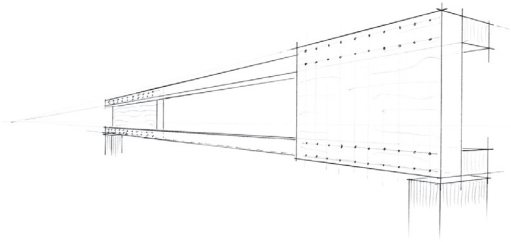


<Es ging darum eine Fußgängerverbindung zwischen Bahnhof und Stadt zu schaffen, aber auch eine Radfahrerverbindung.>

<It was about creating a pedestrian and a cycling connection between the station and the city.>



Brücke Muraun, Prinzip der Tragwerks

<Die Idee des zentralen, geschützten Holzträgers verfolgte uns weiter; beim Traversinersteg und der Straßenbrücke in Peiden Bad.>

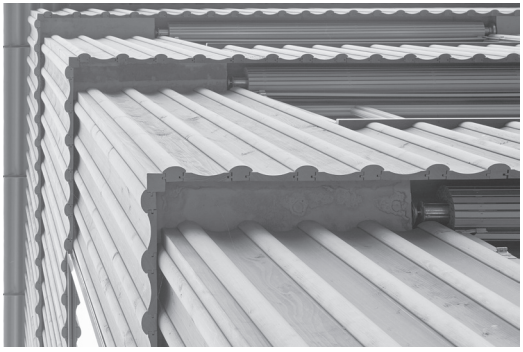
<The idea of the central, protected wooden girder followed us; in the case of the Traversiner footbridge and the road bridge in Peiden Bad.>

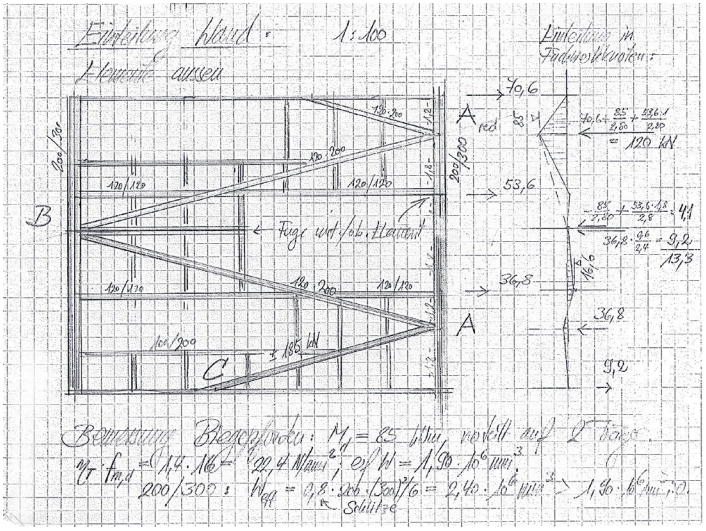
LECTURE

MUR BRIDGE| Murau, Austria | 1995

<Hier kommt wieder das Prinzip der versetzten Fenster, das die Möglichkeit von Diagonalen zulässt, zum Einsatz. Es ist nicht nur eine architektonische Idee dahinter, sondern gleichzeitig eine konstruktive.>

<Here we used the principle of offset windows again, which allows the possibility of diagonals. It is not just an architectural idea behind it, but at the same time a constructive one.>





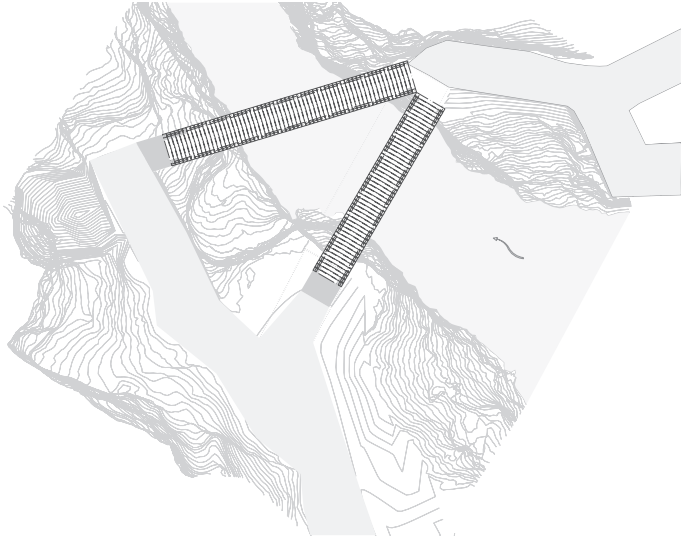
<Wir haben gesagt wir stellen die Stützen in die Mitte des Korridors, aber wir machen sie so, dass die Leute sie gern haben müssen.>

<We said we put the columns in the middle of the corridor, but we make them so that people have to like them.>

EDUCATION AND COUNSELING CENTER ARENENBERG | Thurgau, Switzerland | 2014

<In einer Schlucht mit Felswänden kann man einen ganz flachen Bogen machen. Ein Bogen ist eigentlich eine gute Form zwischen den Felsen; da gibt es einen horizontalen Widerstand.>

<In a rocky canyon you can make a very flat arch. A bow is actually a good form between the rocks; there is a horizontal resistance.>



<Ich dachte mir, wenn man zwei Brücken hat, sieht man von der einen auf die andere und sieht was eigentlich los ist.>

<I thought if you have two bridges you can see from one to the other and see what's going on.>

FOOTBRIDGE VIAMALA | Viamala, Switzerland | 2017

INTERVIEW
Jürg Conzett

JC_Jürg Conzett
RR_Roger Riewe
CH_Christoph Haidacher

RR_Jürg Conzett, herzlichen Dank für diesen spannenden Vortrag, insbesondere zu dem Thema ‚Tragwerke'. Tragwerksplaner versuchen ja oft sich gegenseitig zu überbieten: Wer hat die größte Spannweite, das höchste Gebäude und die dünnste Stütze? Jetzt kommst du mit ganz anderen subtilen, sehr komplexen Vorschlägen daher, wie wir anhand der Beispiele, auf die du konkret eingegangen bist, sehen konnten. Und da kommen auch noch ganz andere, für uns sehr interessante Themen gerade im Zusammenspiel mit der Architektur – Tragwerk und Architektur – auf. Wenn ich auf das eine Projekt, die Holzbrücke in Murau, auf die Zusammensetzung der ganzen Brücke, Bezug nehmen darf: Spielt dort das Thema des materialgerechten Konstruierens für dich eine Rolle? Ich habe diese Holzbrücke und ich brauche den Zug, das Zugband da drinnen. Wo liegt die Grenze? Gibt es für dich als Position eine Material-Ehrlichkeit oder wie weit würdest du dort gehen?

JC_ Ich hole jetzt einfach ein bisschen aus, weil ich das nicht so eins zu eins beantworten kann. In Zürich gab es einmal einen Neubau für den Tages-Anzeiger von Shigeru Ban. Dieser Neubau wurde hoch gelobt, als Holzkonstruktion, und es war wirklich steirisches Holz, das da nach Zürich transportiert wurde – vielleicht die Retourkutsche für die Brücke. Die waren wahnsinnig stolz drauf, dass sie eine Holzkonstruktion ohne Stahl machen konnten. Ich habe die Konstruktion angeschaut und war entsetzt! Ich muss sagen, es war so gegen mein Empfinden. Das sieht so aus wie das Centre Pompidou und das Holz in den Knoten so nach außen und dann kommt irgendein Träger rein. Hermann Blumer, eigentlich

RR_ Jürg Conzett, thank you very much for this absorbing presentation, and especially for the insights you have provided us on the subject of load-bearing structures. It is often the case that load-bearing structure planners frequently try and outdo each other with a biggest and best claim: Who has got the longest span length, the highest building and the thinnest supports? But now you have come along with a quite different set of subtle suggestions and we have seen just how complex these are from the couple of examples you have given and gone through in such detail with us. At this point some other quite different issues arose, especially in the context of the mutual influence of architecture and load-bearing structures that are of special interest to us. If you will allow me to refer to one project, the wooden bridge in Murau and how the bridge has been pieced together in its entirety, does the issue of the right construction method for the materials have any role whatsoever for you here? I now have this wooden bridge and I need the correct tension and tie rods for it. Where exactly is the line drawn here, or is material honesty this position in your view, or how far would you be prepared to go in this context?

JC_ [pauses to think] I shall simply be a little discursive here, because it is something for which I don't have a simple answer. In Zurich at some point there was a new building for the Swiss regional newspaper 'Tages-Anzeiger' by Shigeru Ban. It was widely praised as a timber structure, and it was in fact built with timber from Styria in Austria that had been transported to Zurich, possibly a tit-for-tat job for the bridge, and everyone was incredibly proud of having successfully erected a timber building without needing a steel framework. I had a look at the building myself and I was deeply shocked. It was all completely against my innermost feelings. It all looked like the Centre Pompidou and the timber went like this [hand gesture]… In the knots like this [hand gesture], on the outside and then a load-bearing element of some kind appears… So, Hermann Blumer, who as a matter of fact is a friend of mine and a timber building contractor, makes it possible for something like this to be erected. A man with a mind of genius, but nonetheless in this case I said to myself: 'What on earth is all of this? Simply try and make a timber building without glue and using steel instead. This is an approach that I would find a lot more interesting.' To my mind the approach using timber and glue was altogether a matter of course. With this combination you can grind away and use CNC and design and do whatever you want, but timber construction and steel simply do not mix or come together in the picture in people's minds, and why is this so? It is probably the result of industry thinking. To my mind, steel and wood make a wonderful combination. Pre-stressing plus timber… I hope this combination will be brought out a little bit. These slotted joints for the bridge in Murau; they were simply no good. The structure is steel and wood, it is true, but in this case the combination was not right, and a simple pre-stressed cable was so much better. Ultimately, all I can say is: We have made comparisons, we have tried out various possibilities, looked at them all and have found that this is the most elegant solution… Because it is the one that is the least weak. At the end of the day, we naturally also have to take the performance aspects into consideration; the connection with the greater load-bearing capacity is quite simply the better one. And this is no doubt once more a very pragmatic way of looking at things. If you are really achieving a higher performance

ein Freund von mir, macht als Holzbauunternehmer solche Sachen möglich. Das ist ein genialer Kopf, aber dort habe ich gesagt: ‚Was soll das? Was soll das alles? Macht doch mal einen Holzbau ohne Leim und dafür mit Stahl! Das finde ich interessanter!‘ Also, es war für mich wie die Vorstellung: Holzbau und Leim, das ist völlig selbstverständlich. Da kann man rausfräsen und CNC und gestalten und machen, was man will, aber Holzbau und Stahl, das geht offenbar nicht zusammen in diesen Köpfen. Warum denn nicht? Wahrscheinlich ist es das Branchendenken. Ich finde, Stahl und Holz, das ist wunderbar. Vorspannung und Holz – also ich hoffe, das kommt ein bisschen zum Ausdruck. Diese geschlitzten Verbindungen bei der Brücke in Murau, die waren einfach nicht gut. Es ist zwar auch Stahl und Holz, aber in diesem Fall war es nicht gut, und da war jetzt einfach das Vorspannkabel besser. Und letztendlich kann ich auch nur sagen: Wir haben verglichen, wir haben verschiedene Möglichkeiten ausprobiert, nebeneinandergesetzt und gefunden, so ist es am elegantesten, weil es am wenigsten schwächt. Am Schluss gibt es für uns natürlich immer leistungsbetonte Aspekte: Die Verbindung, die mehr trägt, ist halt besser. Das ist allerdings vielleicht auch wieder eine sehr pragmatische Sichtweise am Schluss. Wenn es wirklich mehr leistet, dann ist es doch interessant – da kann man die verrücktesten Sachen kombinieren. Das andere ist für mich dann eher allzu grundsätzlich… einfach zu sagen, ich bin stolz drauf eine Konstruktion ohne Stahl gebaut zu haben.

RR_ Das Gebäude sieht auch ein wenig anthroposophisch aus, nicht?

JC_ Ja.

RR_ Wie ist denn der Widerspruch, der immer wieder zwischen Tragwerksplanern und Architekten auftritt? Der Architekt möchte natürlich gerne die Architektur, das Ästhetische zeigen, der Tragwerksplaner sucht seine Rolle und sagt: Auch ich bin jetzt Teil des Entwurfsteams. Die Brücke in Murau ist ein sehr wichtiges und interessantes Beispiel dafür. Und jetzt kommt der Streit oder der Diskurs: Was ist jetzt für wen wichtiger? Kann ich das Tragwerk im klassischen Sinne oder die Momentenlinie erkennen? Die Architektur geht zurück in den Hintergrund. Wie siehst du dieses Zusammenspiel zwischen der Architektur und dem Tragwerk oder Tragwerksplaner?

JC_ Ich glaube, ein Aspekt ist schon, dass ich mit einer Generation von Architekten großgeworden bin, die noch den Geist der Moderne hat, dass ein Gebäude vielschichtig und auf ganz verschiedenen Ebenen richtig sein muss. Alvar Aalto zeigte mit dieser Bibliothek in Viipuri diese geschwungene Decke, die schallmäßig Vorteile bieten soll. Das war eine Suche nach Legitimation wie bei Meili Peter, Zumthor oder auch bei den anderen, die ich gezeigt habe. Es ist, glaube ich, wirklich ein Bedürfnis, dass ein Gebäude auch hinsichtlich des Tragwerks ‚stimmt‘. Was immer das heißen soll. Die Absicht verschiedene Disziplinen zu vereinen und zu integrieren – das ist stark bei diesen Leuten. Das ist für mich die

standard then this is interesting, and what is more you can successfully combine the craziest of things. And the other point for me is a bit too fundamental… If you simply come forward and say: 'I am so very proud of having constructed a building without using steel.'

RR_ Yes, wouldn't you say the building looks a little anthroposophical?

JC Yes. [laughing]

RR_ How does it happen that controversy arises ever and again between the structural planners and architects? The architect would naturally like to stand by the architecture itself and emphases the aesthetic aspects, while the load-bearing structure planner searches around for a role and says: 'I am also a part of the design team now.' The bridge in Murau is a truly important or interesting example of this. And that is the point where the argument or the discourse arises: What is now the most important thing for whom? Can I recognize the load-bearing structure in the classic sense or distinguish the moment curve? The architecture gets pushed into the background. How do you see this interaction between the architecture and the load-bearing structure or its planner?

JC_ Well, I believe that an aspect in all of this is that I have grown up with a generation of architects, who have imbibed the whole spirit of the modern to such an extent that a building simply must be complex and multilayered and in addition to this it has to be just right at several different levels. Like Alvar Aalto, who showed with this library in Viipuri how this curved roof structure would achieve acoustic advantages. This was thus a search for legitimation; it can be seen with Meili, Peter Zumthor, or also in some of the other examples I have shown. I think it is a real need for me in these cases – and I will say it straight out – that a building has got to be just right, and this also in the context of its load-bearing structure. Just right, whatever that is supposed to mean… But this intention of combining several disciplines and integrating them, that is a powerful principle with these people… And for me this is the basis for a successful cooperation. It is then also not only a matter of aesthetics… I am thinking now not only of what must be done, but of working together to produce something harmonious and coherent.

CH_ So it really can be said that form does indeed play an important role in your planning work for load-bearing structures. I believe that architects in particular tend to see the position of the engineer as one of pure calculation, a matter of objectivity. It would be interesting for me to find out in your case – and I believe it is something that can be seen quite obviously – to what extent are there subjective differences from one engineering planner to another in terms of the load-bearing structure, regarding personal visions about aesthetics and design?

JC_ Well, we – and I don't mean myself here, but engineers in general – like to see ourselves as scientists, because this puts us in an unassailable position, and this is good in a simple political sense. A simple answer of: 'I have calculated it and therefore it has simply got to be like this!' I can recall a discussion with Quintus Miller and the building authorities in

Basis einer Zusammenarbeit. Das ist dann auch nicht nur etwas Ästhetisches, was sein muss, sondern es ist ein gemeinsames Erarbeiten einer stimmigen Sache.

CH_ Man kann also sagen, Gestalt spielt sehr wohl eine Rolle in deiner Tragwerksplanung. Ich glaube, besonders als Architekt empfindet man die Ingenieursform oft als reine Berechnung, als eine objektive Angelegenheit. Mich würde da interessieren, wie weit der Tragwerksentwurf auch in deinem Fall wichtig ist – ich glaube, man sieht das natürlich auch – und wie sehr doch subjektiv auch von Ingenieurplaner zu Ingenieurplaner unterschiedliche, vielleicht auch private Vorstellungen, Ästhetik und Gestaltungsfragen eine Rolle spielen?

JC_ Die Ingenieure geben sich gerne als Wissenschaftler, weil einen das unangreifbar macht. Das ist, politisch bedingt, natürlich gut: ‚Ah, ich habe das gerechnet und so muss es sein!' Ich erinnere mich an eine Diskussion mit Quintus Miller mit der Baubehörde in Aarau, als wir dort die Markthalle machten und er sagte: ‚Die wollen unbedingt ein Fenster dort. Komm doch mit und sage Ihnen, das geht nicht!' Wir haben das gemacht und dann war das Fenster weg. Das war ein wenig fies, aber der Ingenieur hat das berechnet und darum geht's nicht und tatsächlich ist es ja nicht so. Ein anderes Beispiel: der Traversinersteg, der mit dem Helikopter eingeflogen werden musste, weil das einfach ein entlegener Ort war. Wir haben begonnen, wir wussten nichts, aber das Eigengewicht kannten wir: 4,3 Tonnen. So viel konnte der Helikopter anheben, und das war bekannt. Man kann auch sagen, das ist vielleicht wirklich eine sehr scharfe Bedingung, ein 47 Meter langes Tragwerk mit 4,3 Tonnen Material zu machen. Auch dort war uns schon klar: Es gab Systeme, die gingen, und Systeme, die konnte man von Anfang an verwerfen. Aber als wir dann diese Fachwerkkonstruktion mit den Seilen und den Hölzern hatten, also ob jetzt 16 oder 13 Felder weit, das waren vielleicht rechnerisch 15 kg Unterschied, wenn es dann stimmte. Irgendwann begann selbst in einem solchen Kontext einfach die Formel ihre Schärfe zu verlieren. Das ist eine Erfahrung, die ich oft gemacht habe. Es gibt eine Brücke in Flims, eine flache Bogenbrücke aus Stein. Da war eigentlich klar: Es gibt einen Parameter 1, den Radius, einen Parameter 2, die Stärke, und wir hatten noch eine Vorspannung, Parameter 3. Also, ich würde jetzt sagen, das kann man einem Computer geben. Drei Parameter, und das optimieren. Ich versuchte es. Was kommt raus? Es geht nicht. Da

Aarau, while we were working on the market hall in the town and he said: 'They want to see a window there and they are absolutely dead set on having it. Come along and tell them that it's simply not possible to do it.' Well, that is what we did and the window idea was simply dropped. [laughter] That was a little mean, but the engineer had done the calculations, and that and nothing else was what it was all about. Another example perhaps is the first Veia Traversina, which had to be flown in by helicopter, because the place was so difficult to reach. We had started the work, we knew nothing else, but we did know the deadweight, which was 4.3 tons. The helicopter could manage such a load, and this was also a known fact. It is true to say that this is a really tough condition, having to make a 47 meters long load-bearing structure with 4.3 tons of material. Some other things were also clear: There were systems that could work and other systems that we could forget about right from the get-go. But once we had this framework structure with the cables and the timbers… If we make it 16 or 13 spans now… There was possibly a 15 kilograms difference in calculated terms, when everything was correct. Thus, at some point or other, even in a context like this, the formulas began to lose their sharp contours. This is an experience that I have frequently had. There is a bridge in Flims, it is a flat arch bridge in stone. It was clear here that parameter one is the radius, parameter two is the force and in addition we had prestressing and that is parameter three. I would say this was something that could now be fed into a computer; the three parameters put in and then optimized. I made the attempt. What was the result? It was not workable… So at some point or other, the question arises: Does the tensile stress really still have to be zero at minus twenty degrees and with a crowd of people on one half of the structure? No, it doesn't, because that never happens. Minus twenty degrees and a massive crowd of people, that's a situation that is so extraordinary that you could allow for a bit of tension, but the question is how much? This is the point when the discipline becomes somewhat fuzzy and this is the moment when you are left with some leeway and naturally you use it. Here, I would say a model can be a very helpful aid, not simply as a model, but as something that you feel to be an anticipation of the work to be done and therefore a physical model is what you need of course. It is an anticipation of what is going to happen in the future… you get a bit of a feeling for how it will have to be in reality. In the case of this bridge, I think there is a big model on a scale of one to twenty that was made using real stone. A dentist did the drilling work for us so that we could mount the railings. I know that seeing the model was very important for me; naturally not because we were carrying out structural static experiments on it, that would not have worked so well, but because the model gave us a sense of trust, and the feeling that yes, it is going to work. Basically, because of this it was also an emotional process, up until the point when you sense you have got things right; or when you have the bad feeling that somehow it is not all going so well and that you will have to continue the work. It is difficult to explain this, it is certainly a subjective feeling. But there is something I would call a very powerful personal narrative here and one where you have to make a decision at the end.

RR_ When we take up this emotional aspect; how does the structural planner live with the problems of his supreme discipline – in inverted commas –, the design of bridge

kommen irgendwann die Fragen: Muss bei - 20°C und halbseitigem Menschengedränge die Zugspannung wirklich noch Null sein? Nein, muss sie nicht; das kommt nicht vor. - 20°C und Menschengedränge, da könnte man auch ein bisschen Zug zulassen, aber wie viel? So wird einfach irgendwann die Disziplin unscharf. Das ist dann der Moment, wo man Spielraum hat und den natürlich auch nützt. Das ist ein sehr hilfreiches Modell, nicht nur einfach als Modell, sondern man hat das Gefühl einer Vorwegnahme, also ein physisches Modell. Es ist eine Vorwegnahme von dem, was nachher passiert, und da spürt man ein bisschen, wie es gehen muss. Ich glaube, bei dieser Brücke gibt es ein großes Modell 1:20 mit wirklichen Steinen, die ein Zahnarzt durchbohrt hat, damit wir das Geländer machen konnten. Für mich war es ganz wichtig, das Modell zu sehen. Nicht, dass wir da statische Versuche gemacht hätten, das ging mit dem Modell nicht so gut, aber das Modell gab dann irgendwann das Vertrauen: Doch, so geht's! Das sind im Grunde auch emotionale Prozesse, bis man das Gefühl hat: Jetzt stimmt es. Oder man leidet dann, wenn das irgendwie noch nicht gut ist, und dann müssen wir weiterarbeiten. Das ist nicht so gut erklärbar, das ist sicher auch subjektiv. Aber da gibt es eine sehr starke persönliche Geschichte, für die man sich dann zum Schluss entscheidet.

RR_ Wenn wir diesen Aspekt der Emotion aufgreifen: Wie lebt eigentlich der Tragwerksplaner mit den ‚Problemen', dass bei seiner Königsdisziplin – zum Beispiel das Entwerfen von Brückentragwerken – in der Regel für den Nutzer das ganze Tragwerk nicht zu sehen ist, weil es ja fast immer unten ist? Mir ist es vorgekommen, bei den Brücken, die du gezeigt hast, sind zwei Brücken zu machen, damit man die Brücke eigentlich sieht; oder in Murau, wo ich eigentlich durch das Tragwerk gehe, aber in der Regel ist das ganz Spannende immer darunter.

JC_ Das ist halt so. Im 19. Jahrhundert war so eine Brücke ein wahnsinniges Ereignis. Bei der Wiener Stadtbahn, da braucht's Pylonen, Befestigungen etc. Es ist immer noch toll, aber heute gibt es so viele Brücken; man kann nicht behaupten, jede Brücke sei eine wahnsinnige Pionierleistung. Also, da ist jetzt einfach mal viel Pathos draußen… Man kann dann vielleicht an den Geländern arbeiten. Wir haben auch schon Bronzegeländer gemacht, bei städtischen Brücken. Ganz einfach Kettengeländer, aber wenigstens aus Bronze. Das ist dauerhaft und auch schön. Zum Volta-Schulhaus: Es geht hier nicht darum, dass man hinschaut und findet: ‚Wow, ist das verrückt!' Beim Ingenieur gibt es einen großen Anteil verborgener Arbeit. Die ganzen Berechnungen sehen sie nicht und da gibt es auch elegantere oder weniger elegante Lösungen; die sind jetzt einfach nicht für die Benutzer bestimmt und in dem Sinn muss man halt vielleicht auch im Brückenbau sagen: Es gilt Sachen zu entdecken, aber es ist in der Architektur auch nicht immer anders. Da gibt's bei euch auch verborgene Sachen, die man beschreiben oder erklären muss, und das ist einfach so bei unseren Berufen, denke ich, das ist nicht alles übersichtbar.

CH_ Ja, vielleicht noch ganz eine andere Frage, was für uns Architekten noch interessant ist, das hat Roger

support structures? That the user of a bridge never gets to see the load-bearing structure, because it is nearly always hidden away under the bridge. It appeared to me in the two bridges you have presented, that one needs to have two bridges in order to really see one bridge fully… Or to have a situation as in Murau, where I am actually walking through the load-bearing structure that surrounds me visibly when I cross the bridge, but as a rule whenever I drive or walk over a bridge the really interesting part of it is hidden away, well out of sight, beneath me.

JC_ That is simply the way things are. [laughs] In the 19th century, the building of a bridge like those we are talking about was an amazing event. In the case of the Vienna Metropolitan Railway what was needed were pylons, reinforcing elements etc. But today there are so very many bridges that it is simply not possible to call each one of them an amazing pioneer achievement. Well then, there's a lot of pathos out there… You could possibly work on the railings. We have already made bronze railings, for bridges in an urban setting. Simple chain railings, but at least they were in bronze. The material is long-lasting and also attractive. I have also done this at the Volta Schoolhouse… This is not a matter of taking a look and saying: 'Wow, that's just crazy!' So yeah, in fact, much of what an engineer has to do is hidden work. No one sees all the calculations that have to be done and the solutions can be more elegant or less so; these are quite simply not done for the user to look at and along these lines, in bridge building you will often have to say: 'There are things to be discovered.' But in architecture too, the situation is not always so very different. There are also a lot of hidden things that must be described or explained, and it is a simple fact of our professions that it is not possible to show everything.

CH_ An entirely different question here perhaps, about another thing that is interesting for us architects and this was already mentioned by Roger at the start. Directly after completing your engineering studies you joined Peter Zumthor in his bureau; how did this decision come about? I mean, that isn't an altogether common move, what thinking have you brought with you and what has stayed with you, in your working method perhaps?

JC_ Yes, I will need to do some explaining here; I studied in the 1970s. When I think back on it, it was very strange indeed because as a matter of fact I had uncannily good teachers: Christian Menn, Bruno Thürlimann – the founder of the plasticity theory –, Hugo Bachmann – the reinforced concrete specialist. And yet it had not been possible to establish a culture of thinking in which you really examined in detail the basics of matters. I must say it was a really good training and education in the crafts, and I am grateful to have had this, but I can recall in foundation engineering, we had a lake shore and the task we were given was to plan a high-rise building and with the foundations half on the lake bed and half on the rocks behind it – all terribly complicated – and I said: 'This is not the place to erect a high-rise building!' Everyone laughed. But I didn't find it funny at all, I would say the same thing today and to my mind this practical aspect and attitude was missing in the course of study. We were nevertheless terribly critical, because we had to think everything through very thoroughly… And here we were more or less drilled into being

anfangs schon bei der Einführung erwähnt. Direkt nach dem Ingenieurstudium bist du ja zu Peter Zumthor ins Büro gegangen. Wie kam es eigentlich zu dieser Entscheidung? Es ist ja doch nicht ganz üblich, und was hast du an Denken mitgenommen, was ist dageblieben, vielleicht auch in der Arbeitsweise?

JC_ Ich muss vielleicht ausholen: Ich habe in den 70er Jahren studiert. Wenn ich da zurückdenke, das ist ganz seltsam. Ich hatte unheimlich gute Lehrer: Christian Menn, Bruno Thürlimann, Erfinder der Plastizitätstheorie, Hugo Bachmann, Stahlbetonspezialist. Irgendwie ist es nicht gelungen im Studium eine Art Kultur des Denkens einzurichten, wo man den Sachen auf den Grund ging. Es war handwerklich, wirklich eine sehr gute Ausbildung, muss ich sagen. Ich bin dankbar, dass ich das genießen durfte, aber ich erinnere mich, einmal im Grundbau, da war ein Seeufer, und man musste ein Hochhaus planen und die Fundation war irgendwie zur Hälfte auf dem Felsen und zur Hälfte auf dem Seegrund; furchtbar kompliziert! Ich habe gesagt: ‚Hier sollte man kein Hochhaus bauen!' Alle hatten gelacht. Ich fand es überhaupt nicht lustig und würde heute genau dasselbe sagen, fehlte doch ein Aspekt. Ja, wir waren auch furchtbar kritisch, weil man sich doch die Sachen grundsätzlich überlegen muss, und da wurden wir eher so zu Mechanikern abgerichtet. Wenn ein Ingenieur wie Christian Menn, der ganz hervorragende Brücken gebaut hat, das nicht wirklich vermittelte, oder vielleicht auch nicht vermitteln konnte, und so empfinde ich es jetzt… Die Architekten, die diskutierten von Grund auf, und wir waren relativ nahe. Es gab einen Professor, Angelo Pozzi, der als junger Ingenieur bei Pei gearbeitet hatte. Der sagte: ‚Geht zu den Architekten, schaut, was die machen, das ist spannend, das solltet ihr wissen!' Das war aber der einzige, der uns dazu animiert hat und daher dachte ich immer, die Architekten sind schon interessant. Aus gewissen Zufällen ergab sich dann dieses Praktikum bei Peter Zumthor und ich bin dann halt sieben Jahre dageblieben und habe natürlich die Anfänge dieses Büros miterlebt. Es war schon beeindruckend. Einfach damals die Intensität, wie man da Transparentpapier tagelang vollskizzierte, aufhing – und jetzt geht's doch noch anders, probiere mal so… – aber er war auch neugierig, was ich denke. Am Anfang – ich hatte Zumthor über Bauherren von ihm kennengelernt – habe ich gesagt: ‚Ich würde gerne zu dir arbeiten kommen als Praktikant', und er so: ‚Ich kann dich doch nicht brauchen'. Dann habe ich gesagt: ‚Ach, ich komme mal und dann nach einem Monat

mechanics. Even an engineer like Christian Menn, who really built these superb bridges, could not really put this across to us adequately – is what I am thinking nowadays – what really matters. The architects… They discussed everything – from the foundations upwards – and we were relatively close to them. One of the professors, Angelo Pozzi had worked at Pei as a young engineer and said: 'Go to the architects and see what they are doing, it is really interesting, and you ought to know all about it!' He was the only one that really got us going and he's the reason I have always thought of architects as being very interesting. [laughter] Then as a result of a coincidence, I had an internship with Peter Zumthor and I stayed on there for seven years, and naturally, I experienced the beginnings of this firm and it was pretty impressive. Even back then it was quite simply the intensity how things were done, how the tracing paper was completely filled with sketches over a period of days, then hung up to be carefully considered and then the conclusion was: 'Well, it can all be done differently, let's try this instead.' The thing is, he was truly curious about what I thought, and that is how it was… I got to know him through some of his clients and I said: 'I would very much like to come and work for you on an internship' and he replied: 'What am I supposed to do with you?' And then I said: 'I will simply come along and then after a month we can talk about money and the like.' So, I forced my way in at the door and the first thing I had to do was a perspective drawing for a presentation of an extension project for the Churwalden Schoolhouse. And perspective drawings, that is something I could do as an ETH engineer. And with this I had managed to make myself a little more useful [laughter]. Then came this special situation of the 1980s, this schoolhouse extension… The engineers who were employed on the job came in and simply waited around until they were told what to do. There really was this waiting position and the architect did not know what to do either. He found out eventually of course, through experience, but at the start… And this was where I came in, making suggestions, that was all, just suggestions. I discovered that this was very interesting and to some extent making suggestions has remained a fixed role in my life ever since, meaning simply to react and make counter-suggestions whenever you hear people saying things like: 'Whatever can we do now?' Simply getting a process going and getting down to the depths and details of the load-bearing structure.

CH_ Could you call this endowment of your work with meaning through architecture?

JC_ Yes, sounds a bit abstract… But yeah, why not! I am a structural planner, no more nor less, but I have a certain concept of what this job is all about and naturally architectural aspects have their role in it.

RR_ Well, evidently, a very important role. You have frequently shown sketches, or hand-written ideas and concepts and to some extent with the calculations to back them up, but at other times simply as text. It is clear that a computer might well be used in the background for some of this. But nevertheless, I can imagine that it is practical for this way of thinking to get it all down on paper first, actually translating mental efforts into handwriting, well before a calculation phase. The concept must come first.

sprechen wir über Geld und weiteres‘. Also ich habe mich da aufgedrängt und das erste, was ich dann tun musste, war eine Perspektive zeichnen für eine Präsentation der Erweiterung des Schulhauses Churwalden. Perspektiven zeichnen, das konnte ich als Ingenieur der ETH. Dann war ich schon mal ein bisschen brauchbar. Nachher war die spezielle Situation in den 80er Jahren, also diese Schulhauserweiterung. Die Ingenieure von außen, die beauftragt wurden, kamen und warteten, dass man ihnen sagte, was sie zu tun hätten. Das war wirklich eine Warteposition, und der Architekt weiß das ja auch nicht; also mit Erfahrung dann schon irgendwann, aber am Anfang… Das war meine Rolle: Vorschläge zu machen, nur Vorschläge. Das fand ich interessant und das ist auch irgendwo ein bisschen meine Rolle geblieben, zu sagen: ‚Was könnte man machen?‘, zu reagieren und zu widersprechen. Einfach einen Prozess in Gang zu bringen, eine tiefe Auseinandersetzung mit dem Tragwerk.

CH_Könnte man sagen, eine größere Sinnstiftung über die Architektur?

JC_ Ja, tönt ein bisschen abstrakt, aber ja, warum nicht? Ich bin ein Tragwerksplaner, nichts anderes, aber ich habe gewisse Vorstellungen, was das ist, und natürlich spielen da auch architektonische Aspekte eine Rolle.

RR_ Ja, offenbar eine ganz wesentliche sogar. Du hast öfter so Skizzen gezeigt oder Überlegungen, und das war handschriftlich, teilweise auch gerechnet, teilweise auch geschrieben, und klar, irgendwann kommt im Hintergrund wahrscheinlich der Computer mal daher. Aber ich glaube, da ist ja auch eine Denkweise erstmal, das praktisch auf‘s Papier zu bringen, also, die Denkleistung praktisch handschriftlich zu machen, bevor es überhaupt dann gerechnet wird. Das heißt, das Konzept muss zuerst stehen.

JC_ Ja, das hat eine Tradition. Also, ich habe als Schüler noch mit dem Rechenschieber gearbeitet. Das war noch in den 70er Jahren. Natürlich hat man alles handschriftlich gemacht, statische Berechnungen und irgendwelche Pläne von Maillard, etc. Du hast immer handschriftlich Diagramme skizziert, Drucklinien konstruiert. Das ist nichts anderes als diese Tradition, die noch ein bisschen fortlebt. Bei Zumthor war natürlich das Zeichnen schon eine harte Ausbildung; zuerst mit dem ganz harten Bleistift und dann… Er hat mir Beispiele gezeigt aus der Kunstgewerbeschule, als sie da Äpfel und so zeichneten. Zuerst immer mit dem ganz harten Bleistift, dann eine Spur weicher drüber und verbessern. Einfach alles, nur Radieren ist nicht erlaubt. Das ergab wunderbare, vielschichtige Zeichnungen. Dort war das Zeichnen ein Training, das ich sehr schätze.

RR_ Die Welt des Computers, die kommt natürlich beim Tragwerk dann auch zum Tragen, logischerweise. Wie schätzt du das ein, als Position in Bezug auf die Digitalisierung in den Bauprozessen und als Momentum in der Tragwerksplanung?

JC_ Yes, that has tradition. I still worked with a slide rule when I was in school, back in the 1970s. Everything was hand-written of course; structural static calculations and some plans by Maillard and the like… You were forever producing diagram sketches by hand, constructing pressure lines and so on and so forth… All this tradition that is still being kept alive a little bit today. Drawing was the thing at Zumthor of course, and it was a tough training; first with the hardest grade pencils… He gave me examples of how apples and objects were drawn at commercial art schools, always starting with the hardest pencils, and then a shade softer to go over and improve it. And then a bit more… Rubbing out is not allowed and this resulted in wonderfully multi-layered drawings. That is how it was, a training in drawing that I greatly valued.

RR_ The world of the computer has its logical place for load-bearing structures. What is your assessment of that, or how do you see it as a position for yourself, in terms of the continuing development of digitalization in the construction process and for the momentum of load-bearing structure planning?

JC_ Well, I have started to draw using the computer this spring. I find it an absorbing activity and… No, I can't be dependent on an apprentice whenever I need a word corrected and the like... I admit that it is an expanding of possibilities. Seen from another perspective, however, the simple fact of the existence of all these 3D programs somehow deprives people of their power to imagine things. It costs me a great deal of effort to get young engineers to draw a bridge abutment on a sloped site, because this requires a certain amount of imagination and this is not a faculty that has been improved by the computer. The same is true for building physics and statics, if you have trained your funicular polygons backwards and forwards, this gives you a kind of ready eye for the subject. I would maintain that you do not get this feel for the subject from simply working on the computer. I can feel myself forced into a strongly competitive corner simply through dependence on the machine. It would be tempting to deprive people of the machine for a week and say to them: 'Try and get long without it and see what you can do.' Of course you can't do this. I really think it is a combination that is absolutely essential, and this is why I have a problem when people are simply dependent on the outputs they receive without understanding where it comes from, or have no critical approach to what they are being fed. Yet all of this can be perceived quite naturally the other way around… My Lord, I really had to capitulate in the Basel Zoo project; I simply couldn't do the complex calculations for a tensile structure by hand. I know because I tried, and it simply didn't work out. Luckily, things somehow turned out satisfactorily in the end, but all of my initial pre-dimensioning work was off. Tensile structures are simply too complex. I would be happy if someone could explain to me how to do tensile structure calculations successfully with a pen and paper. But this is a point where I surrender and admit there are things that can only be done on the computer.

CH_ This is a plea for the sketch, for structural thinking and also for the model, of course. Regrettably we have not seen this in the presentation today; although this direct access method is provided in a number of projects… These quickly

JC_ Ich habe diesen Frühling begonnen auf dem Computer zu zeichnen. Ich finde das spannend. Ich kann auch nicht abhängig sein vom Lehrling, wenn irgendwo ein Wort korrigiert werden muss. Also, das ist schon eine Ausweitung der Möglichkeiten, das gebe ich gerne zu. Umgekehrt stelle ich einfach fest, dass all diese 3D-Programme den Leuten irgendwie die Vorstellungskraft wegnehmen. Ich habe große Mühe, junge Ingenieure dazu zu bringen, ein Widerlager in einem Abhang zu zeichnen. Das fordert ein gewisses Vorstellungsvermögen, und das hat sich durch den Computer nicht gebessert. Bei der Statik ist es dasselbe. Wenn man sich noch Seilpolygone vorwärts und rückwärts trainiert hat, dann gibt es einen gewissen Blick. Und nur am Computer bekommt man den nicht, behaupte ich. Also, da fühle ich mich schon noch irgendwie stark, verglichen mit der Abhängigkeit von der Maschine. Natürlich darf man das nicht, aber eigentlich würde man den Leuten gerne mal die Maschine eine Woche lang wegnehmen und sagen: ‚Übt jetzt mal ohne und schaut, was dabei rauskommt!' Ich glaube, es ist wirklich die Kombination, die nötig ist und da habe ich ein Problem, wenn die Leute nur noch abhängig sind von diesen Outputs und nicht verstehen, was da kommt und auch nicht kritisch sind. Umgekehrt aber, selbstverständlich… Mein Gott, bei diesem Basel Zoo, da musste ich kapitulieren; Seilnetze, das kann ich nicht rechnen von Hand. Ich habe es versucht, es stimmte alles nicht. In der Summe ging es dann irgendwie zum Glück noch auf, aber alle meine Vordimensionierungen waren falsch. Bei Seilnetzen, das ist zu komplex. Also, ich wäre froh, wenn jemand mir das beibringen könnte, wie man Seilnetze von Hand rechnet. Aber da muss ich wirklich die Waffen strecken und sagen, es gibt Probleme, die man nur noch auf dem Computer bewältigt.

CH_ Grundsätzlich ist es ja ein Plädoyer für die Skizze, für strukturelles Denken und natürlich für das Modell. Wir haben es heute leider im Vortrag nicht gesehen; bei einigen Projekten gibt es ja auch diesen unmittelbaren Zugang, diese schnellen Modelle, diese Radiergummi-Stiftmodelle, die in einfacher Komplexität eigentlich schon das ganze Tragverhalten erklären und skizzieren. Ich weiß nicht, ob diese Modelle plakativ sind oder ob du wirklich so arbeitest. Ich finde das höchst spannend, dieses unmittelbare Darstellen im kleinsten Modell, das schon alles erklärt.

JC_ Oft kommt das schon im Nachhinein. Ich muss gestehen, der hat etwas Chaotisches, der Entwurfsprozess, aber wahrscheinlich überall. Man versucht Strukturen hineinzubringen, aber es gelingt nicht und erst nach einer Weile beginnt man zu merken, wo es eigentlich hinmuss und dann kann man rückblickend sagen: ‚Aha, das ist der logische Ablauf'. Ich glaube, es ist auch wichtig, dass man es rückwärts konstruiert, weil das eine Versicherung ist, dass es stimmt. Ja, da finde ich es auch gut, wenn man am Schluss so etwas wie eine Zusammenfassung liefern kann und sagt: ‚Das ist wichtig und darum haben wir das so gemacht, und das andere geht dann auch, ist aber weniger wichtig'. Also, dass man herausfindet, was wichtig und was weniger wichtig ist.

made models, these rubber-pencil models with their simple presentation of complexity can actually explain and sketch the entire load-bearing behavior pattern. I don't know if these models are simply eye-catchers or if you really need them for your work? I find them very interesting either way. This method of presenting and explaining everything in an altogether miniature format.

JC_ This is frequently a retrospective effect. I must confess that the design process – and this is probably true everywhere – has something chaotic about it. You attempt to bring in structures, but it simply doesn't work out and it is only after some time that you actually begin to notice where the things must go and then taking a look backwards you can say: 'Aha! That is the logical sequence.' I also see this constructing backwards as important, because it is a way of ensuring that everything is done correctly… And yes, I also find it a good thing if you can provide a kind of summary on completion and say: 'This is important and this is the reason why we have done it the way we have, and that other thing is also workable, but not so important.' It is a method for establishing levels of importance.

CH_I have been listening to some of your talks and presentations from the past and noticed your use of the term 'conceptual designing.' In a text by Christian Penzel, your working method is then described as 'structured finding,' since you embed your emerging projects in other bigger and unexpected contexts after all. How are we supposed to understand the process of conceptual designing? Is there a fixed method?

JC_ Well, the aim is simply to cover a great deal of ground with one single measure. I have demonstrated this with butterfly figures at some point – you attempt to find a concept that can solve many problems in one go and all further decisions can then proceed from this one point. This is probably a fundamental attitude, a kind of synthetic thinking if you like. In contrast now to collages perhaps, that could also be used. But I think it is more interesting to be able to get across a great many of the most different things by using one bridge support structure, than to simply add one after the other. You are possibly seeking for a kind of minimum… Not quite of effort, but it is rather the search for a simple pithiness of the plan… That is what we are aiming for.

RR_ Planning or building into the landscape is one of the most difficult tasks for architects at the present time, as there is no reference point; nothing constructed in sight. In an urban context this is somewhat easier, there are things like the eaves height or a gap or whatever… But this all becomes very complicated in an open landscape. It is all a question of scale of course, when you are working with various scales and then have to react to another one. What is the problem of working with various scales like for you? Or what kind of a challenge is this, in particular for bridge support structures, such as the one in the Viamala Gorge? Because you are dealing with vast landscapes, incredible scales and all of this must be as meticulously planned down to one to one detail as with hand railings.

JC_I am not sure if there really is such a great difference to the city, because – well, all I can say is I really enjoy being

CH_ Ich habe mir vorab ein paar ältere Vorträge von dir angehöhrt. Da ist der Begriff des ‚konzeptuellen Konstruierens' gefallen, in einem Text von Christian Penzel wiederum heißt es, deine Arbeitsweise sei ein ‚strukturiertes Finden', da du deine Projekte dann doch wieder in größere und unerwartete Kontexte einbettest. Wie darf man sich den Vorgang des konzeptuellen Konstruierens eigentlich vorstellen? Gibt es da eine fixe Methode?

JC_ Ja, es ist einfach das Ziel, mit einer Maßnahme ganz viel abzudecken. Ich habe das einmal mit Schmetterlingsfiguren gezeigt; man versucht ein Konzept zu finden, das einfach viele Probleme auf einmal löst, und von dem aus gehen dann die ganzen Entscheidungen. Das ist vielleicht eine Grundhaltung, eine Art synthetisches Denken, wenn man so sagen will. Im Gegensatz jetzt vielleicht zu Collagen, die auch sein könnten. Aber ich denke, es ist interessanter mit einem Brückentragwerk verschiedenste Sachen zu überqueren, als verschiedene aneinanderzuhängen. Da sucht man so eine Art, vielleicht fast ein Minimum an Aufwand, aber vielleicht ist das nicht das richtige Wort, also einfach eine Prägnanz des Entwurfs, und das ist ein Ziel.

RR_ Das ist ja für die Architektur oder für die Architekten eine der schwierigsten Aufgaben jetzt im landschaftlichen Raum zu planen oder zu bauen. Weil da nichts ist, wo man sich anhalten könnte; da gibt's nichts Gebautes. In der Stadt ist es schon etwas leichter, da gibt's eine Traufhöhe oder eine Baulücke, aber in der freien Landschaft ist das ziemlich kompliziert. Das ist natürlich eine Maßstabsfrage, wenn man mit verschiedenen Maßstäben arbeiten und auf einen anderen Maßstab reagieren muss. Wie sieht das Arbeiten mit verschiedensten Maßstäben dann bei dir aus? Oder welche Herausforderung ist das insbesondere bei den Brückentragwerken in der Viamala-Schlucht, weil ja gewaltige Landschaften da sind, unglaubliche Maßstäbe, und das aber durchkonzipiert wird bis zum Geländer, bis zu diesem 1:1 Detail?

JC_ Ich weiß nicht, ob das wirklich so ein Unterschied ist zur Stadt. Ich kann so sagen: Ich bin gerne dabei, wenn die Geländeaufnahme gemacht wird. Heute ist das relativ bequem; da kommt ein Vermesser mit seinem Gerät und ich kann dann nur den Reflektor halten und ich kann alle Punkte anpeilen, die auch etwas Interessantes an sich haben, und da ist eine Landschaft, die in der Regel ganz viele interessante Punkte hat: ein Fels, der zum Vorschein kommt oder irgend so was. Ich glaube, man kann eine Landschaft hinsichtlich Geologie, Hydrologie, all diese Sachen, die eine Rolle spielen, wahrscheinlich am Schluss ebenso bestimmt betrachten wie eine Stadt. Es gibt daher ganz viele Gegebenheiten. Und dann beginnt eigentlich erst die Arbeit. Man muss sich ein bisschen zurückhalten und zuerst einfach aufnehmen. Das habe ich vielleicht noch ein bisschen in den Genen meines Vaters, von der Kartographie her: Einfach mal feststellen, was ist, und das mit der nötigen Genauigkeit, und dann kann man loslegen, wenn man das memoriert hat, was da spielt. Ich sehe jetzt keinen wahnsinnigen Unterschied in einem bebauten Umfeld oder in einer Landschaft.

present when the topographic mapping is done. This is all a relatively easy process today; the surveyor comes along with his equipment and I can hold the reflector and can aim at all of those points that I feel have something interesting about them. And a landscape is usually full of very interesting points; when a particular rock mass emerges, or something of the kind. I believe that you can probably view a landscape with the same level of certainty with which you take in a cityscape, in terms of the geology, hydrology, all the details that have a role. All sorts of spatial conditions are involved. It is at this point that the real work begins; you need to be somewhat reserved and, first of all, simply take everything in. For me, it's possibly something in the genes I inherited from my father… This thing with cartography… Simply take notice of the given situation and this with the required level of precision, and when you have fixed all that can be done in your memory with this method you can really get cracking. So… I don't really see such a massive difference between a constructed environment and a natural landscape.

RR_ At the end of the day, this is a very architectonic way of seeing things.

JC_ Natural images also play a part in the tourism area. This one slender stone arched bridge for example, it was named the Waterfall Bridge because it was entirely obvious from the start, due to the Wasserweg hiking route in Flims, that it had to follow a specific route, because it would then have a dramatic waterfall as a background. These classic images of Switzerland from the Schöllenen Gorge, the Devil's Bridge with the waterfall behind it… Deciding for a stone bridge rather than a timber one is a relatively clear matter here, because the waterfall produces a lot of spray in spring, and while this is relatively moderate in autumn, the bridge has to cope with all the seasons. You have to keep that in mind, that the conditions are different in autumn to those in spring. This perspective made it perfectly clear that it would have to be a stone bridge; and when it is to be a stone bridge, the kind of arch it will have is also relatively obvious… At the start for example, we were too close to the waterfall. At some point or other I also noticed: If you want to experience a natural spectacle of this kind in its full glory, then you will also need to do so from a certain distance, otherwise you are too hemmed in. Questions of this kind, they play a role at this stage. Ultimately on completion, I would hope that all this is understandable, and it is clear why we chose to do things the way we did.

CH_ How do you basically see the relationship of nature and the human in a constructed object? For example, taking the work of another Swiss engineer, who has implemented numerous infrastructure projects in Ticino: Rino Tami…

JC_ Well, he was an architect.

CH_ Was he an architect? Oh! I beg your pardon. [laughter] He almost established monuments against the landscape. This is an entirely different strategy, especially when you compare it to that of the Wasserweg in Flims. What is your position on this?

RR_ Das ist eine sehr architektonische Betrachtungsweise.

JC_ Auch im touristischen Bereich gibt's da natürlich Bilder. Die eine Brücke da, die schlanke Steinbogenbrücke, die heißt Wasserfallbrücke, weil eigentlich schon klar war, dass bei diesem Flimser Wasserweg der Weg dort durchmuss, weil weiter hinten ein dramatischer Wasserfall ist. Da gibt's natürlich klassische Schweizer Bilder aus der Schöllenenschlucht, die Teufelsbrücke und hinten das Wasser. Es liegt dann relativ nahe, eine Steinbrücke zu machen und nicht eine Holzbrücke, weil der Wasserfall im Frühjahr ganz stiebend ist und im Herbst relativ moderat, aber die Brücke muss das alles überstehen, und man muss zuerst mal merken, dass es im Herbst anders ist als im Frühjahr. Da war es dann klar, dass es eine Steinbrücke sein muss, und wenn es eine Steinbrücke sein muss, ist der Bogen relativ naheliegend. Wir waren dort am Anfang viel zu nahe am Wasserfall. Irgendwann habe ich dann gemerkt: Um ein solches Naturschauspiel zu erleben, braucht es eine gewisse Distanz, sonst ist man zu sehr drin. Solche Frage spielen dann eine Rolle. Am Schluss, hoffe ich, ist ein gewisser logischer Ablauf, warum etwas so geschieht, eigentlich durchaus nachvollziehbar.

CH_ Wie siehst du grundsätzlich das Verhältnis von Natur und menschlichem Bauwerk? Also im Vergleich zu einem anderen Schweizer Ingenieur, der im Tessin auch viele Infrastrukturbauten realisiert hat: Rino Tami.

JC_ Er war Architekt.

CH_ Er war en Architekt? Pardon! Er hat ja gleichsam Monumente gegen die Landschaft etabliert. Das ist, speziell wenn man sie mit dem Wasserweg in Flims vergleicht, eine ganz andere Strategie. Wie ist da deine Position?

JC_ Tami hatte die Aufgabe, eine Autobahn von Airolo nach Chiasso zu begleiten. Ich habe gestaunt, wie viele Pläne er gezeichnet hatte in seinem Büro als Architekt. Da gibt es Schalungspläne von Überführungen, die eine sehr intensive Arbeit erfordern und von der Natur der Sache her monumental sind. Gotthardtunnel, 15 Kilometer Straßentunnel, nachher diese Autobahn durch die Leventina, also das ist ein Umbau des Tales in großem Maßstab. Er hat immer gesagt, das ist ein Bauwerk, 70 Kilometer lang, und ich möchte eine Einheit aus diesem Bauwerk gestalten, bis hin auch zu den Tankstellen, Ruhebänken und solchen Sachen. Ich denke, das ist ihm weitgehend gelungen, dass aber natürlich so eine Aufgabe auch Tunnelportale bekommt, das ist von der Natur aus schon etwas Monumentales und das ist auch wirklich fantastisch gut. Ich finde, das ist das beste Autobahnstück in der Schweiz, und zu Flims, zum Wasserweg, auch zu der Viamala haben mich die Leute gefragt: ‚Wie fühlst du dich so in der wilden Natur?' Da habe ich gesagt: ‚Eigentlich sind das alles quasi industrialisierte Landschaften'. Flims, das ist höchst touristisch, mit vielen Kabeln, Seilbahnen, Kraftwerken, Schneekanonen, da passt das gut hinein, wenn man noch

JC_ Well then, Tami had the task of supporting the freeway construction work from Airolo to Chiasso. I was astonished by the vast number of plans he drew for this in his bureau as an architect. There were plans for shuttering diagram and for overpasses, this was very intensive work and in its nature of a monumental character. The Gotthard Tunnel, 15 kilometers of road tunnel, is followed by the freeway through the Leventina and this represents a restructuring of the whole valley on a gigantic scale. He always said: 'This is one single structure, 70 kilometers long, and I aim to design this structure as a single unit right down to the gas stations, the benches at the freeway service area and other things of that kind.' I think he was very largely successful in this, and of course a project on such a scale also includes the big tunnel portals too, from its very nature a monumental task and also truly fantastic. To my mind, it is the best freeway section in Switzerland, and when people have asked me in Flims at the waterfall path, or in Viamala: 'What is your feeling about being out in the wilds of nature?', I told them: 'In actual fact, these are all quasi industrialized landscapes.' Flims, that is an absolute tourist center, with endless lengths of cable, cable cars, power stations, snow canons, so if you carry on with the building development a bit, it fits in perfectly. The Viamala too, it is the oldest transit route through the Graubünden region where the Romans hacked their way through the rock in the mountains making whatever we do seem moderate by comparison. I find stuff like that interesting, on the Flims path project we found some remains of old slides, which the alpine farmers used to transport their cheeses down into the valley on wooden sledges even in summer, and these slides maintain a perfectly constant gradient and very generous curves… Really interesting. We integrated some of this work into the path. When you think about it, we are actually in a structurally developed area and I must say it would have cost me a great deal more effort to have done something similar on the Greina Plain or in a glacial area. In fact, I have always had the good fortune to work with what in reality are developed landscapes, even if they do not always make that impression. This makes it easier on me than if I had to say they were landscapes that would have been better left unchanged… And yes, there have been offers that I have simply turned down, because I thought I just could not do them.

RR_ As a structural planner, or in your case as a structural designer, how do you deal with the issue of load-bearing structures and ephemerality? The theme of building for eternity?

JC_I have probably not given enough attention to this aspect in the presentation, but we have done some timber bridges with replaceable parts. So, this is a key issue. I find that Murau provided a good answer to it with the central girder. In many cases, and with timber construction in particular, you have to think very carefully: What parts will last how long exactly and how can these be replaced? The interesting thing in Scandinavia is the timber bridges look as though they were made of steel and you ask: 'How do you do it?' The fact is they have a tradition of chemical treatment for the wood used and the answer the Scandinavians give is that it is no problem, it works for them. I think it over and come to the conclusion that simply transferring what they do from Scandinavia to Central Europe is not feasible. The differences at the micro

ein bisschen weiterbaut. In der Viamala auch, das ist die älteste Transitroute durch Graubünden. Die Römer haben sie in den Felsen gehackt und wir sind da vergleichsweise moderat. Aber ich finde solche Sachen auch interessant; beim Flimser Weg haben wir zum Teil alte Rutschen entdeckt, wo die Älpler den Käse auch im Sommer mit Holzschlitten nach unten geführt haben. Die Rutschen haben eine ganz konstante Neigung und großzügige Kurven. Das ist interessant, das haben wir in den Weg integriert. Also, man ist eigentlich in einem bebauten Land und ich muss sagen, ich hätte jetzt viel größere Mühe, so etwas irgendwo auf der Greina Ebene oder in einem Gletschergebiet zu machen. Ich hatte immer das Glück, mich eigentlich immer mit bebauten Landschaften auseinanderzusetzen, auch wenn es vielleicht gar nicht den Eindruck macht. Das fällt mir leichter als zu sagen Landschaften, die man besser in Ruhe ließe. Ja, da habe ich auch schon Aufträge abgelehnt, weil ich einfach dachte, das kann ich nicht.

RR_ Wie gehst du als Tragwerksentwerfer mit dem Thema ‚Tragwerk und Vergänglichkeit' um? Mit dem Bauen für die Ewigkeit?

JC_ Ich habe das vielleicht ein bisschen wenig angetönt im Vortrag. Wir haben ja einige Holzbrücken gemacht, bei denen die Teile auswechselbar sind. Das ist eine zentrale Frage. Ich finde, Murau gab darauf eine gute Antwort, mit dem Zentralträger. In vielen Fällen, gerade beim Holzbau, muss man sich dann ganz gut überlegen: Welche Teile halten wie lange und wie wechselt man die aus? Das Interessante in Skandinavien ist: Die bauen Holzbrücken, die wie Stahlbrücken aussehen, und da fragt man sich: Wie geht denn das? Also, die haben eine Tradition der chemischen Behandlung des Holzes und sagen: ‚Das ist kein Problem, das geht bei uns'. Dann denke ich aber irgendwie, das lässt sich nicht einfach von Skandinavien nach Mitteleuropa übernehmen. Da sind einfach die Mikrounterschiede, Klima oder was weiß ich, zu groß. Ich möchte es auch nicht. Es ist einfach eine andere Tradition, das ist ja auch interessant. Aber das sind schon zentrale Fragen, die man heute auch jetzt bei Tiefbauämtern standardisiert hat: Verschleißteile, geschützte Teile, Schutzbehandlungen und so weiter. Das habe ich jetzt vielleicht zu wenig betont, aber das ist ganz zentral.

RR_ Und ein Statement zu der Brücke in Genua, die dort eingestürzt ist?

JC_ Ja, ich meine, ich kann dazu jetzt etwas sagen, wo ich weiß, was da eigentlich los war. Es ist eine Brücke, die ich sehr geschätzt habe, fotografiert habe, zu den Zeiten, als ich auch unterrichtete, kam die von Morandi, das war ein Pioniergeist ersten Ranges, sehr interessant. Also, was mich extrem gestört hat, ist, dass man dann so sagte, Morandi war halt nicht so ein guter Rechner. Es gab Kommentare und ich meine, ein Pionierwerk, das 50 – 60 Jahre besteht, hat einfach an sich mal irgendwie die Probe bestanden. Wenn das nachher so tragisch endet, ist das nicht die Schuld von Morandi.

level, in the climate or whatever are simply too great. I don't want to do it either. It is simply another tradition, but that is also interesting. But these are central issues that of course have now been standardized by civil engineering departments: expendable parts, protected parts, protective treatments and so on. I have possibly not put enough emphasis on this, but it is an issue of central importance.

RR_ And a statement on the bridge that collapsed in Genoa?

JC_ Well, I can say a few things now that we know something about what happened. I admired the bridge, photographed it, it was spoken about in the time when I was teaching. Morandi was in any case a pioneering spirit of the first order, very interesting. I was extremely upset when people began to say Morandi could not do his maths and… I mean, there were comments of the kind on the pioneer work he did. His work had simply stood up to the test of time for 50-60 years. When everything ended so tragically, it was not the fault of Morandi.

CH_ To go back again to the architectural and engineering heritage, what can be said in general about the balance between preserving and destroying, continuing to work on old structures or building new ones… Is this heritage issue a sacred cow?

JC_ No, of course not. It was simply a kind of inner explosion of anger that drove me into the monument preservation issue. This is how I would describe it now with a small pinch of exaggeration. But when engineers themselves destroy the witnesses to their own past, willfully… That is horrific and it simply happens, and does so all too often, and it certainly was once a very powerful urge to say: 'Well no, it doesn't have to be this way, we can deal with it in another and better way.' I can tell you that Swiss Railways have a whole series of beautiful painted viaducts. At one point they had become too narrow as operations had changed, which is understandable. But then the tops were ground off them and a gravel bed was put on them – the same thing is probably done in this country too – and the fact is these structures are then ruined, meaning architecturally destroyed; that is a reasonable assertion. With the private Rhaetian railway, we have looked for better solutions and – with the insistence needed – we have found them. This is of course, a process that could be called preserving engineering monuments, that you have constantly in mind and that is not always easy to do. Furthermore, the results are not always successful but well worth the effort simply for the commitment and involvement it demonstrates.

RR_ Exactly. In fact, that is a very fine closing statement. [laughter] Jürg, I would like to offer you our heartfelt thanks once again for the incredibly precise and very attractive presentation you have given us on the complexity of load-bearing structures, which then represent architectures and also explain the diffusion between the load-bearing structure and architecture. I have thought about this a lot recently and how it would be described in German. I think in English, you would call it simple but not simplistic. This conveys a lot of what I see your work as. Many thanks!

JC_ You are very welcome!

CH_ Um nochmal auf das architektonische und ingenieurmäßige Erbe zurückzukommen: Wie verhält es sich denn im Allgemeinen mit dem Bewahren und dem Zerstören, dem Weiterbauen, Neubauen? Ist dieses Erbe per se unantastbar?

JC_ Nein, natürlich nicht. Das war so eine Art Wut, die mich da in die Denkmalpflege getrieben hat. Ich sage das jetzt ein bisschen zugespitzt. Aber dass Ingenieure die Zeugnisse ihrer Vergangenheit selbst zerstören, mutwillig; das ist doch fürchterlich und das kommt viel zu viel vor; und ja, das war wirklich so ein ganz starker Drang damals zu sagen: ‚Nein, das muss nicht so sein, man kann das auch anders lösen!' Also ich sage jetzt einfach, die Schweizerischen Bundesbahnen haben eine ganze Reihe von schönen, gemalten Viadukten. Irgendwann sind die zu schmal und der Betrieb hat sich gewandelt, das versteht man alles. Jetzt fräst man da oben einfach mal ab und setzt einen Schottertrug drauf – wahrscheinlich hier zulande auch – und dann sind die Bauten einfach kaputt, also architektonisch kaputt. Das kann man so sagen. Wir haben jetzt einfach mit der Rhätischen Bahn nach besseren Lösungen gesucht und die auch gefunden, mit der nötigen Insistenz. Das ist natürlich eine Pflege der Ingenieurmonumente sozusagen, die einen schon beschäftigt, und das ist natürlich auch nicht immer einfach und gelingt vielleicht auch nicht immer, aber ist einfach eine Auseinandersetzung wert.

RR_ Genau. Das ist ein schönes Schlusswort. Jürg, herzlichen Dank für diese unglaublich präzise, schöne Darstellung über die Komplexität von Tragwerken, die Architekturen darstellen und auch diese Diffusität zwischen Tragwerk und Architektur dann auch darzulegen und darzustellen. Ich habe in letzter Zeit so überlegt, wie heißt das eigentlich im Deutschen? Ich würde das so beschreiben: simple but not simplistic. Da steckt, glaube ich, dann einiges dahinter, wo ich deine Arbeit so eingebettet sehe. Herzlichen Dank!

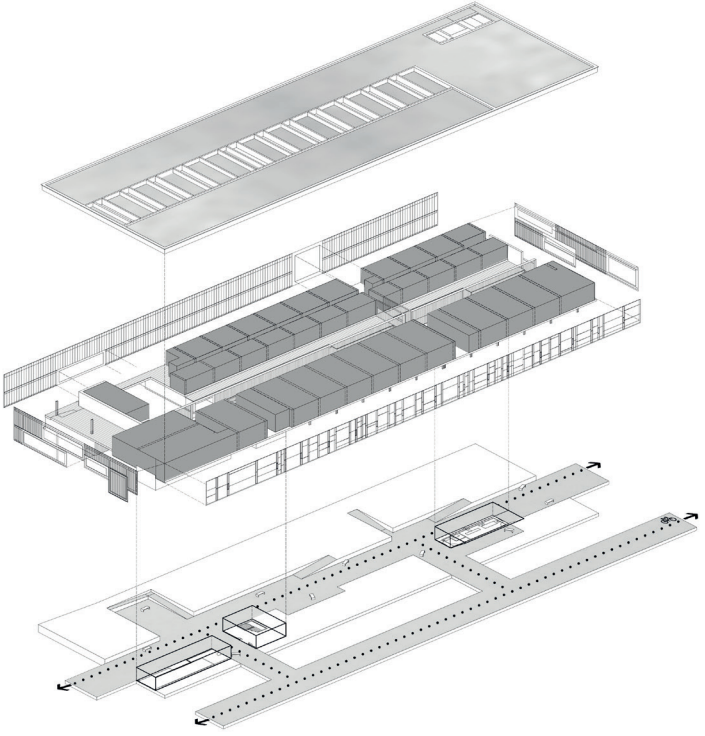
JC_ Gern geschehen!

JOSE MORALES & SARA DE GILES

NOVEMBER 12, 2018

< The main focus was to create
a space for relationship. >

<We really proposed to have all the uses
that [the client] needed – classrooms, offices,
apartments – in only one big building. >

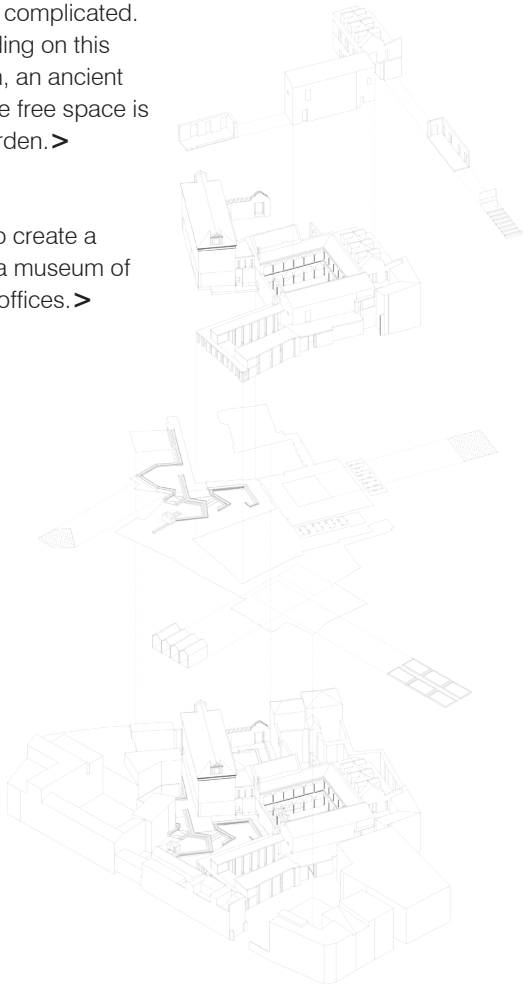


LECTURE

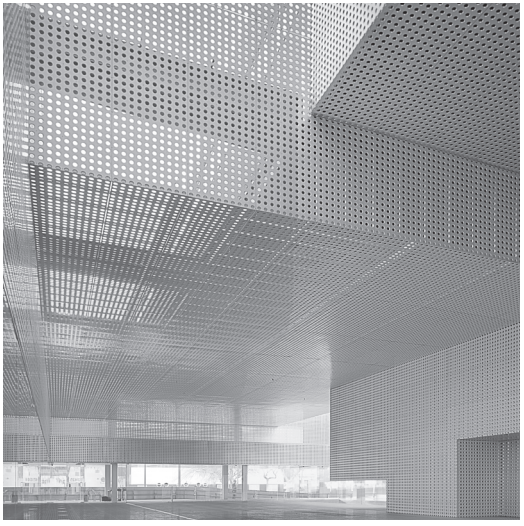
LECTURE BUILDING AT PABLO DE OLAVIDE UNIVERSITY | Seville, Spain | 2000 – 2011

<The site is very complicated. The existing building on this site was a church, an ancient cloister and all the free space is the vegetable garden.>

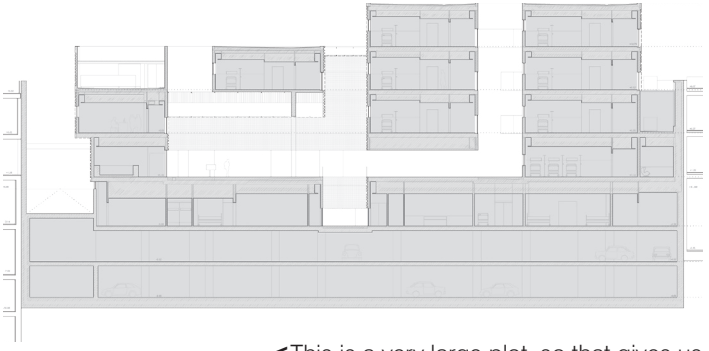
<The task was to create a research center, a museum of architecture and offices.>



CONVENT OF SANTA MARIA DE LOS REYES | Seville, Spain | 2015



<The relationship of the building with the big square allows us to consider a new path through the building.>



<This is a very large plot, so that gives us also the opportunity to offer an interior street to connect the two main streets.>

CARTUJA HOSPITAL | Seville, Spain | 2008 – 2012

INTERVIEW
José Morales & Sara de Giles

JM_José Morales
SG_Sara de Giles
RR_Roger Riewe
MV_Marisol Vidal

RR_ Thank you very much for this very intriguing lecture. You covered a lot of theory in these projects, which you presented. Before we really get started in our think-tank I have one question to begin with, a quick one: You spoke about the economic crisis in Spain, but how can the Catholic Church have a crisis?

JM_[smiles]

SG_[smiles] Okay, that is one I can't answer because I don't know [laughs]. I don't know. Anyway I don't know if here in Austria you also suffered severe consequences due to the economic crisis. You probably did, but I am sure these were not so hard as they were in Spain. Things were really bad, public construction came to a complete stop for… I don't know how long: five, or six years? It's true that initially private construction suffered greater damage, the problems in the public sector set in later and to some extent they are continuing today with only very limited resources available for public projects. Little by little, however, we are once again beginning to see some open architectural competitions. Another related problem is that these past few years of severe recession have also caused serious damage to Spanish architecture. The reason for this is that the system of contracts for the competitions gives priority to the fee reductions. When you enter competitions the jury values not only the idea or the project in their assessment, it also places a high priority on a 50 percent reduction of your fees. The fees of the architect and also the costs of construction are included in this. This is ultimately reflected in the projects. You win a competition basically without having researched

the venue, with a project that pays little attention to the city for which it is supposed to be intended, that ignores spatial relationships but with a focus on one single priority, constructing as cheaply as possible with no regard whatsoever for quality. But now I think we are beginning to… [she mimes wordlessly the process of her head re-emerging from water and laughs]

JM_ Yes, the crisis – I would like to think it is the past but I am not sure – anyway it was a great opportunity if for nothing else, to think about the most important things in architecture. You don't have much money, you certainly haven't got a big and ambitious program, but what you do have is an endless number of enormous problems… In fact, that is all you have left. In this phase the opportunity for us was to reflect on the space, the city, the people and primarily, the main title of architecture. And for us this was the dimension of the buildings or projects we built in these seven or eight years of consistent hardship. This was the most important issue in our office at that time. Things have changed now, however, because at the present time we are spinning around at speed to develop all our new projects but back then we were only doing one project every year, so the question that we posed was a very important one indeed.

SG_ We became more essential, isn't that so?

JM_ Yes, and also the main thing in that period was the university. In the university, you have real colleagues, you meet up in the corridors or the common rooms and discuss things with other teachers and they have the same problems, everybody is doing some other work, or has managed to get contracts abroad, or is doing anything at all. And ultimately, in the classroom, it was amazing to realize that the young people who were studying faced the same problems that you did. We at least had some work, but the young people faced the all-important issue: how can I earn my living with competitions, with projects, what are the prospects? However, I believe Spanish universities have been greatly enriched by this.

SG_ Greatly enriched?

JM_ Yes, because they have had to put the big question more or less directly on the table in this recession period.

SG_ That always happens when a crisis comes, research goes up.

JM_ Yes, the problem is only: we are still going to have seven or eight years more. [laughs]

SG_ Than others, yes. [laughs]

JM_ But it was a wonderful period.

MV_ These projects we have been started with a competition and we can see that you give some added value to the program…

JM_ Yes.

MV_… So they wanted to have a kindergarten and you gave them a village... Or they wanted to have a hospital and you gave them a street. Seems to be a strategy, that you...

JM_ Yes, because each project is a very big opportunity to do something that anybody would like to do but it is you who gets to do it. For example, we have a hospital, we do a street. 'Wow, but what's the relation between a street and a hospital or with this city and a school for children?' But it's the same always. For example, in Zamora the problem was that this is a strong city – this is Castilla, it's not the south and it's not the north, and this is where they have money. But then Castilla is very strong... I might want to say lovely, but the people here never smile: 'Una ciudad triste...' [all laugh]

SG_A sad city.

JM_A sad city. [all laugh] Then we used broad volumes for example, because the buildings here are more or less in this one kind of color, a red color, and it's an ugly red. And we opened this building up because we wanted to avoid the typology of the big program. We put in rooms for people and then, as a strategy, we put in one like this, one the like other, and we had people go through the interior. But it is the same, it is one opportunity: to put this corridor or to put people to be… The possibility to have complicity between them and anyway, at the beginning they could understand exactly why we had won. Ultimately, however, I want to say that we are concerned about people having better conditions. I don't know in what way, but it has something to do with this volume and this light and through this ceiling and this room...

RR_ As a matter of fact this topic of defending or fighting for the public realm is very European. We have always noticed that whenever we have big investors they constantly attempt to make the fence, or the door, try to protect their own private property against intruders or the public. I noticed with your work that it also comprises this struggle for a reinventing process, in which you recapture the public realm, or as you say the street. Even if you have private clients I can imagine it's very hard to convince them, right? Of course, you can win a competition but finally there is the private client waiting for you. And then you have to negotiate. Which strategy do you actually use for this kind of re-imposing the public realm on a private property?

SG_ It depends on the project. Each project has the… We try to convince the property… For example, this one of the hospital was crazy. I don't know the situation in Austria but the urban rules in Spain are very strict and we have a different manner of doing things… We had a maximum of square meters to construct for each plot and we have different methods for applying the rules, the urban rules don't consume these square meters. And, for example, in the hospital the fact that this street connects two other streets and the fact that the exterior is like a passage but an outdoor passage, we had a plus of… I don't remember how many square meters but this was a very big volume

and we've been left with a large number of square meters to construct additionally. With another hospital typology you would lose those, you can't get all this new space because we had reached the maximum number of square meters to construct. Of course we had the focus that a hospital is open 24 hours a day; and when the property developer discovered this space he said: 'No, no, I want this space for myself. Just for me. I want to close it and I want to use it for my own personal programs, I don't want people crossing it.' We said: 'No, you can't do this!' We knew at the beginning that this circumstance would be sure to crop up, so we said: 'No, it's impossible, you can't close it in, because this space is essential for safety, it is a spatial fire barrier, an integral part of the fire prevention system and if you close it in...' Okay, at the end we proved it was impossible under the applicable rules and there was an end of the matter. We very much like working with rules in the projects we do… Well, looking back to our beginnings, during our university days everyone was always complaining: 'Oh the rules, they are far too strict!' And we set out in another direction and always reply by saying: 'No, on the contrary, if you are clever you can make sure the rules do not work against your project and what you can do instead is to sometimes use the rules to ensure you get a better project. You are working with conditions and you can go through all the rules and get some really good ideas.' And this was the case with the hospital for example. We convinced the other ones by telling them: 'No, there is no more money, we can't put a fence, all the money went out.' [laughs] Okay, each one has its own history.

MV_ But in your relationship with public space and with these new streets and these itineraries through the building we can also see a theme emerging of filtering or making intermediate spaces, which are neither outdoor nor indoor, but something in-between and possibly both at once. This is a strategy, which we have also seen in the French project, which is in a very different context in terms of use of the public space compared to Seville. It also has very different climatic conditions. How does this rules principle work in France? Did they understand, was it something they understood from the very first moment? Or was there any questioning?

JM_ In France the big problem for us is not exactly how to reserve free space... Not at all because, you know, in France the most important thing in architecture is the urbanism. You can talk with them, with the urbanists,

and advance rapidly to a more or less friendly solution but the problem – the truly big problem – is to develop the project because they separate out the construction, the structure, the façade, the sustainability strategies… And they do each one of these before the next one and always in this 'one after the other'-pattern with the result that they are unable to think of it all together as a single process. But achieving this relationship and getting it right is the most important and the most difficult of tasks. But as for the free space and light and all of that, well it is no problem whatsoever. Seriously. The big problem is the execution of the project. That was always the unavoidable stopping block. We would have finished three months ago but... Uffff… Mamma mia, [all laugh] was that a difficult business!

MV_ In that sense the Spanish and the Austrian systems are much more similar to each other than the French one – although France is somewhere in-between and also a neighbor – and architects have much more control of the building and overseeing the building site and so on. But I know, the French system tends to divide up into pieces the responsibilities for who is in charge of what and it's difficult to maintain continuity throughout the whole process.

JM_ So you will have to do some teaching work there. [laughs] They are your neighbors, because between Spain and France you have the Pyrenees. And this is a big barrier you need to encounter and overcome… [laughs]

MV_ You're right, but we also have the Alps… [laughs]

RR_ In your presentation you focused strongly on very urban conditions, right? With this always concerning the urban condition, and the heritage condition. And when you see the projects there is also something happening simultaneously – these are highly sophisticated architectural projects. But you didn't talk about that, or at least not today. And because it was more about the indoor street and the public realm inside the buildings, the organization of the building, the theatre, which is an interpretation of an Arte Povera image being built, or a constructed manifestation... And then you see: 'Oh there is the topic of the envelope!' Marisol was already hinting at it previously, so many projects of yours were finally given an envelope. What is the importance of the structural envelope for your projects?

SG_ It is true that this is another thing we try to do and concerning which we carry out research in every one of our projects. In the beginning, with the first project we developed at the studio we were very preoccupied with the construction and about achieving a look for coherence concerning the project idea and its construction. And finally, recalling our Níjar project, which we have not presented today – it was a theatre project in the middle of the desert in Almería. It was one of the first projects we did and it was very important for us to create an exterior space protected by the main building. This was a consequence of working in the middle of a desert, where you can easily imagine the strong influence of climate. We used a structural skin in this project. We saw it as very important to find an envelope that provides real continuity

and we also studied each layer used in detail to determine how each one of the layers contributes to providing and maintaining the freshest air for the interior of the building. I think our research always begins with an attempt to have layers – ventilated cameras and insulations – and to care for the people who will be inside the building. But it also provides other possibilities… Because these layers sometimes help us hide the scale of the building. The windows and all the elements need to be in relation to the landscape, although sometimes we have attempted to get in an extra one. Yes, but ultimately what we attempted to do was to create this building like an oasis in the desert. People responded to this and said: 'What is it, this strange project? I must go there and see.' We also try to work with the materiality involved in an attractive manner. We also work with scale, and sometimes we try to hide the scale also as a means of attracting people and getting them to say: 'I must visit that place, I wonder what happens there?' I discover some useful colors or try really to activate things – I think 'activate' is the appropriate word. We always try to activate public space with our architecture.

JM_ But you know, Roger, this is one of main points for research in any aspect of architecture. Where you put the structure and the envelope. You know?

SG_ We saw a change in our last project, didn't we? The nursery school…

JM_ We were going to present another building today, another project that we have done. But instead we offered what for us represents a very important research, because ten years ago we were conscious of the need to have a language of the building. What we now see is the need to inhabit any place in the building. To have that possibility, the structure must offer great support for living. I think Lacaton Vassal for example, is moving in this direction. Where you put the structural skin and bones is one thing, but the discussion focuses less on where you put it than that you can't create a space for living in an intermediate space, right? And now for us the main research must not be with the dimension – as I said before, the dimension of building, of program. This is the reason why we have put up this little building for children, the discussion here is about putting the structure out and the space for living inside this structure. In this case the protagonism of the structure must not be a language. This was the problem in the past, for example, when the attempt was made to have the structure as the language of the building, isn't that so? But now I think more in the tracks of what happened in the 1960s and the discussion must be about support. For example, we have seen a wonderful building this afternoon, marvelous. And this is a very big structure.

MV_ The 'Terrassenhaussiedlung' housing project in Graz.

JM_ This is the biggest structure. I might possibly agree with somebody who calls it an ugly building, but what a wonderful, ugly building! [all laugh]

MV_I'll remember that. [laughs] But coming back to the structural envelope. If we try to find some roots in the traditional architecture of south Spain – where you are from, where you studied, where you have your practice – we see these cubic buildings mainly white, and they are something of a tradition in southern Spain. We can recognize a certain connection to this cubic structure in the way you deal with your volumes, creating shadows, creating fresh spaces in between. But you tend to use an envelope that is almost immaterial. Very often, it's more like a veil around the building – translucent or using different materials such as plastic or glass or perforated metal –, but in the end they all produce a veil around the building. So where does this decision come from, this conscious decision not to produce a massively solid building, but to let it become immaterial in this way?

JM_I really think it's like a human body, don't you think? You have these dresses [points at SG's dress] and you put the body inside them. Could that be a reason?

MV_ You mean functioning like a dress worn on the body?

SG_ But it depends in a way…

JM_I am not sure because in another tradition for example, these dresses are light but you have a lot of air between the dress and your body. But now… [laughs] Things have changed a lot I think.

SG_ The materials and things have changed but also… It depends on the program we… For example, it's a pity that I didn't bring some photos of the Níjar Theatre because I think it would be the beginning of a lot of research.

MV_ Anyway, I think most students here know this project, because I have shown it in the 'Baustoffkunde' building materials classes for years. [all laugh] So it's ok, they all know which project you are talking about. [laughs]

SG_ Everybody questioned one thing in this project: 'Why do you use this material to construct this theatre in the middle of the desert? All the houses and all the industrial buildings are white cubes.' So we said: 'But it's the only theatre in the village so this building has to have a party dress. Because otherwise no one will recognize it.' This really is the way to make a difference, isn't it? And why not? It's a program that is completely different in this village and that is why the appearance has to be different. I think every program must try to provide an answer for each moment in history. In the contemporary situation we are now experimenting we attempt to use other potential construction materials. Sometimes we believe that our use of this material provides the opportunity for giving the work an aura and adding value to the surroundings. In our architecture we always try to achieve this veil effect, and one reason I think, is simply to be more neutral in our work and to avoid conflicts with our neighbors. Some people may reject what we are doing and say we are simply trying to create an image and attract attention to ourselves. My

answer is that it's altogether the opposite, we are trying to be neutral in what we do.

MV_ One could say to almost disappear. When you see these pictures it seems to be almost like a ghost, fading into the background.

RR_ But I also think that in terms of an architectural discourse, when developing a façade, the biggest challenge we have as architects is that of the window and the door. Because they both show a kind of scale. And when you develop the envelope you are more or less camouflaging this really tough challenge. There is a point, which you hinted at before, which I think was absolutely correct and this is that research is always dependent on the state of society or the state of the economy. The worst scenario for research is a very good and successful economic situation. This is because there is simply no reason for research anymore; you are already completely successful. But when you are in a crisis everybody is desperately interested in research to find a way out of the crisis. So now that things are speeding up again in Spain and especially in your field of work, what are the research topics for you in the future? What will the next steps be in your research work?

SG_ Are you asking about us or generally in Spain? For us... I think the direction is the one you mentioned earlier. The intermediate relation... One part of the research will be on this relationship between the structure and what was referred to as the dresses it wears. Quite possibly the task will be to try and find new in-between spaces, but to do this continuously and always in the context of a total preoccupation with the city and how to make this city more human with your own little contribution – with a house or a public building. I think this preoccupation is always present.

JM_ In a way, everybody wants to see more development programs, to have more big spaces and to have value. Even when not knowing exactly what people want this basic wish principle still applies. For example, now we are developing two libraries. But if you take the trouble to read the library program and the municipal government program you will soon find that it's impossible to discover what they want from a library, [all laugh] because the program notes are full of ideological terms and concepts. For example, 'it empowers people' is a topic. 'Empower people, cultivate vegetables...' – in the library? I wouldn't know how to start. [all laugh] And incredible as it may sound you read two pages and only one line says: 'You must create a place for reading.' [all laugh] But this is true, it is the fact of the matter. Now public buildings are built and are there to solve the problems of societies. And what problems are these? This is in itself a problem that is difficult to solve exactly. When you think about programs you also have to think about research and about society. These things cluster as if they wish each other's company; they want to resolve the discussion between different races, between customs, between the generations and all of that... And for the people involved in all of this one public building represents an opportunity to resolve some

aspects of the big problem. And for now the competitions. How many are we doing, two or three? And all moving in the same direction. But it's true that this is the way we can reset the opportunity to discover what they want. For example, the big opportunity for us now is researching housing.

MV_ You have previously pointed out this friction between private and public sectors, which I think is the bottom line of the subject here. Sometimes you have a public problem but you still need or wish to see some kind of a profit from it, to have a more profit-oriented building use. And you turn this around completely with your private clients and try to include something in their projects of benefit to the public. How do you move in-between these two positions? Because this dichotomy is also the history, or the current state, of our democracies – the revolving axis between capitalism and the public or common good –, do you agree? How did you experience this friction or manage to swim in-between the two?

SG_ Well in housing for example… We have one or the other project in Cádiz. One was a rehabilitation of an old palace to be used for social housing. We always try to bring across the message that it's very important never to close the collective space to the city. Because we always try to convince them that we get permeability. On the ground floor and to the city. And all these people living in this housing will be protected by pedestrians passing or looking. They are protecting their space and also the street, because in Spain social housing continues to be constructed in the urban periphery. I really don't know why some architects or the urban rules continue to promote the block, the closed block, with the patio inside. At the end of the day all these streets become completely isolated. You enter your block and all the life you can get in the patio has nothing to do with what is going on in the street. The street begins to become isolated and if it is isolated it is dangerous. This is really a disaster. We try to convince everyone that it is very important that all the life of a location stays very permeable to the street. This is the only way that you can keep your neighborhood safe. So never close your life away from the street.

RR_ But this is also a reaction to the contextualizing of architecture when bedding it in society. As you said before, one of the most important aspects of architecture is its context in society. And now again a question for the future:

Society is changing and behavior is changing, we may be the 'dotcom' generation but we will be pushed aside now by the digital natives who have completely different methods of communication, of utilizing public space, of communicating with each other and so on? And what then is your architectural answer to all these questions arising for the future of society? Because this will be one of the most important challenges for architecture.

SG_[laughs] I don't really understand your question...

RR_ Society is changing enormously, right? What is your answer for the future?

SG_ For these changes in society?

JM_ To design the available space in such a way that people will try to negotiate the relationships that exist in a house, in public, in the street, in public buildings by means of this available space. This is always the way to resolve problems when people struggle. For example, in housing, the problem is to put older people and children or young people together so they have to share the space amicably. The difference between ages, between races and cultures, these issues are essentially all the same. Then the problem for us is again to invent this space, a task that nobody pays you for. Provide the space for negotiation, obligate people to amicably settle their differences. Everybody today – including your children – comes home to their mobile device and computer. My ten-year-old daughter is in constant contact with her friends through her computer. I don't know who she is in contact with, except that they are friends of course, but you know exactly what their relations are. You also know what space they need. And this is the problem now because nobody paid for that space; nobody has paid it for you. The main subject of research is to invent programs and to support maintaining this space that nobody pays for. And in the midst of all this you place houses, development programs, a theatre or something like that. But you have another intention.

MV_ Yes, added value is actually the main part of the project, right? Even though it was not asked for in the first place.

JM_ Twice a week we go to the university and every year the problem is which program we are going to provide for the students. And it is always: 'Okay, okay, the program is housing or whatever.' This is because ultimately it is the research about this space for supporting conciliation measures that we want them to reflect on.

SG_ Yes, because I think this is one of the most important problems in the context of public space: how to offer public space or human space to people for their relationships. And we always have doubts about whether this space is dangerous or not and what are the possibilities to activate it. At the end of the process you will need architecture. I am surprised on the tour we did here in Graz, by how much ephemeral architecture there is in the public space. This includes numerous

small market stands or kiosks like little boxes where you can buy a hamburger or the like. These things are all ephemeral. And I wonder why the city architecture doesn't also offer something of this kind, or why it has not explored and established this relationship with public space. Why do you need to have small continuous but ephemeral architecture occupying public space? It's a little contradictory. There are plenty of kiosks and things of that kind in all the squares we visited, in fact far too many of them! And there is nowhere for me to relate to other people or to stay around for a while and have some fun. There are a great many of these, so why doesn't architecture resolve that the problem? What do you need to fill the public space?

RR_ Come back in three weeks' time and the city will be full of little boxes. [all laugh]

SG_ More than now?

RR_ Yes, at Christmas time. But I think we can experience a different kind of programming, as Pepe [JM] already said, in the context of communication. I think we should have some drinks and food now and continue to chat next door with the aim of resolving the big problems and challenges of our architecture. Sara and Pepe, thank you so much for this presentation and for the discussion.

JM_ Thank you.

SG_ Thank you.

TATIANA BILBAO

NOVEMBER 19, 2018

<One of the most important things we realized afterwards was that this place became the best an the most important museum and art institution of the whole city.>

<My first hesitation as an architect was to really understand how we could create an order that would include the new program, but also the old one.>

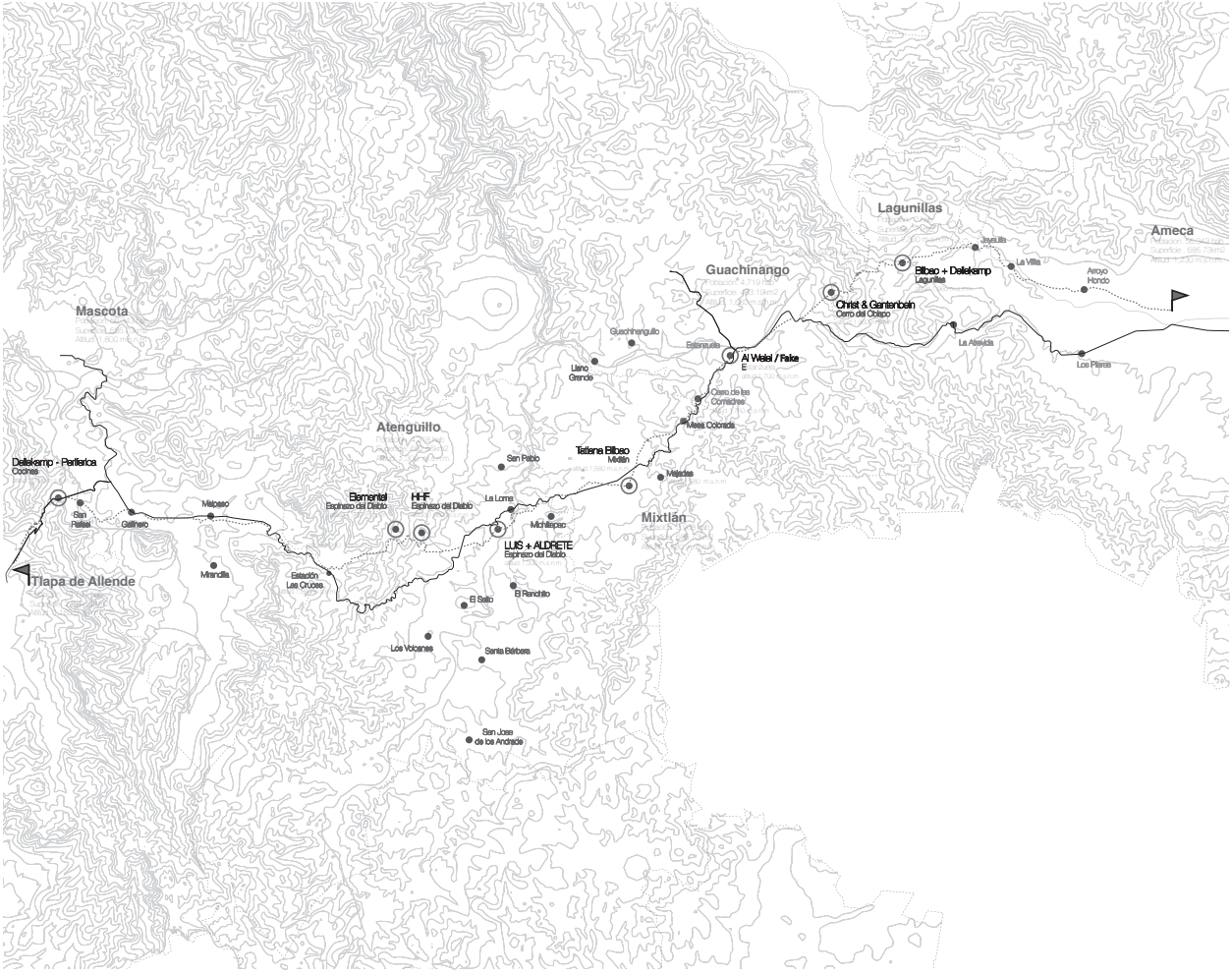
LECTURE

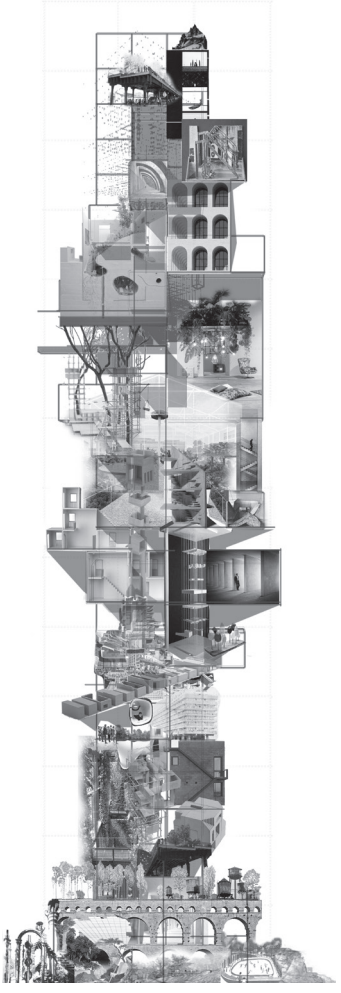
BOTANICAL GARDEN | Culiacán Rosales, Sin., Mexico | 2012

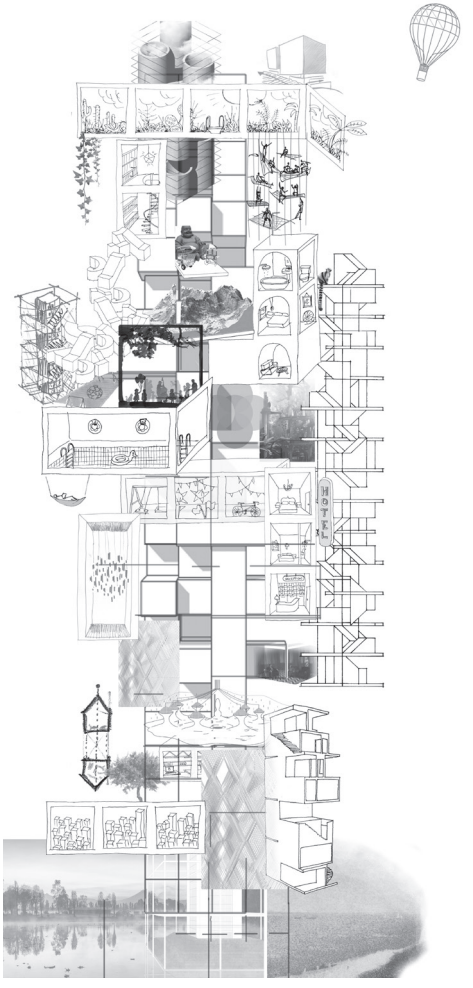
<We [Tatiana Bilbao and Derek Dellekamp] decided to invite a series of architects to do the interventions. [...] The task was to create little infrastructure and interventions along these 154 kilometers long route. >

<What we wanted to do is something that was recognizable from far apart. [...] We decided to do an open chapel. This is an encounter point. Pilgrims arrive here first and then start walking. >

RUTA DEL PEREGRINO | Jalisco, Mexico | 2008 – 2010



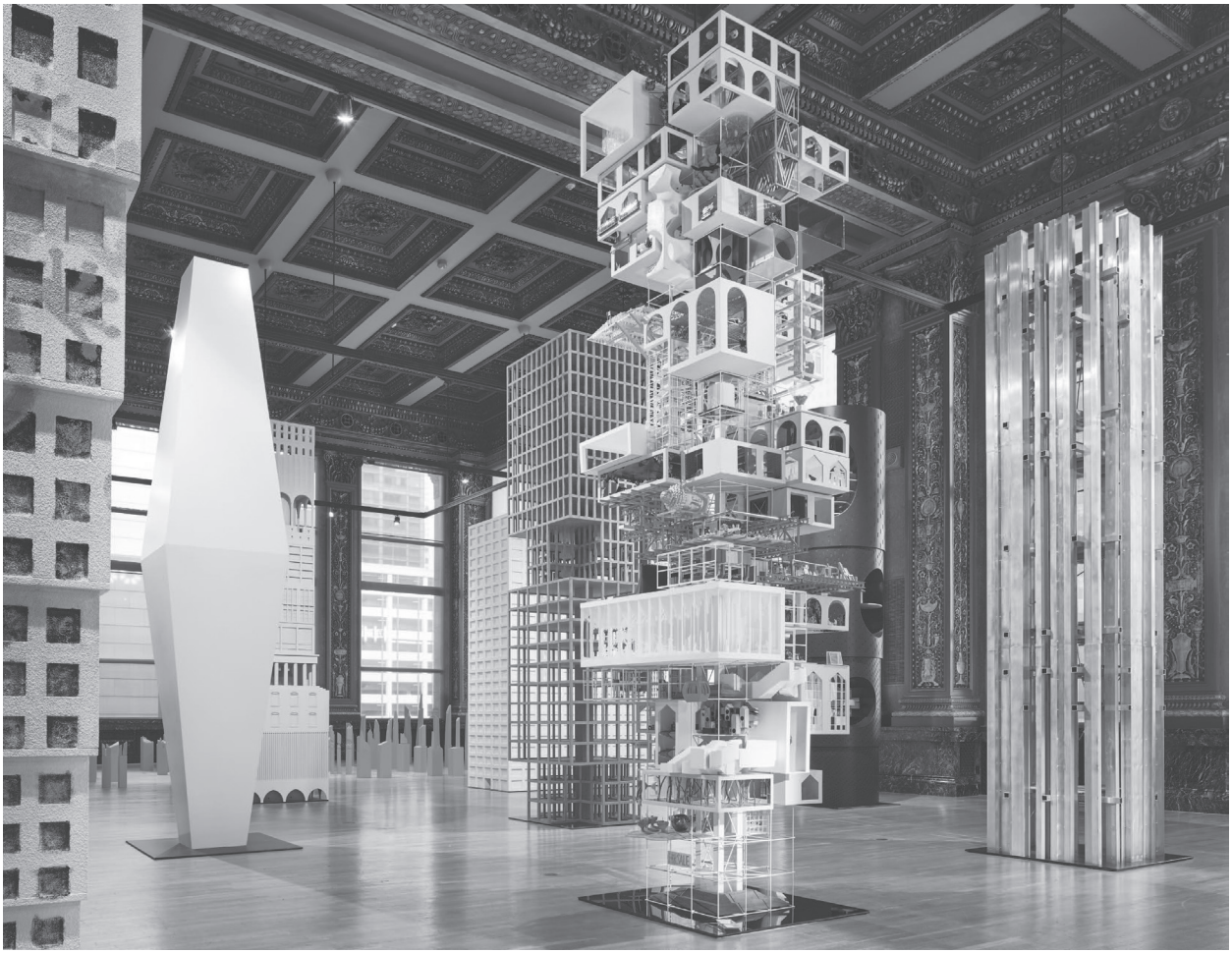




<As architects we need to understand to operate thinking that we are the other.>

<I have done a lot of academic research on that [otherness] in different schools.>

[NOT] ANOTHER TOWER | Chicago, USA | 2017



INTERVIEW
Tatiana Bilbao

TB_Tatiana Bilbao
RR_Roger Riewe
CV_Claudia Volberg

RR_ Thank you very much for the presentation, for these projects, where – when you go through them – you are still always asking questions. The questioning is by no means over yet and I feel this is the right moment for a Think Tank, an opportunity to continue the discussion about the projects and your approach to architecture. Starting from the back – this topic of living, where I am sure that you are correct both in assuming that architects really believe they know what it is all about and also in your questioning of their absolute authority in design for living. But this position has now proved to be a tool, a strategy for design. So what is it that actually lies behind it all? What do these images, what do these collages ultimately have to show us?

TB_ For me what it is all about is the possibility for presenting and actually describing a space, which still only exists as a feeling or a sensation, because it has not yet been perfectly defined. When you assemble this as a collage composed of many different elements, it is still not exactly a space. It is simply a series of things that are piled up one on top of the other. And for me the issue is still more a matter of describing how we organized those images, by describing those sensations and moments of space we intended to create. From this perspective it is possibly comprehensible at least to some extent why we once said: 'Okay, we need 25 square meters of space.' And, under normal circumstances, this operation would easily take you to a room. This is why we wanted to go back. I think this all began when we were doing a project in San Francisco. We needed to define a very

big area, a masterplan for a neighborhood… We started thinking how we could describe this space and started this operation differently. Previously, we brought in the square meters for parking, the square meters for housing and the square meters defined for whatever else… As I said before, if we want to really think differently, we have to operate differently. Otherwise we will… [laughs] We will be doing the same experiment over and over again and never expecting to get something different. Was it Einstein who said that if you do the same experiment again, don't expect the same results? [all laugh] Do expect the same results, don't expect something different!

RR_ When using the collage technique… It must be kept in mind that a collage is a collection of images. So the important question is who is actually deciding what image will become a part of the collage?

TB_ Yes, it is, once again as I have already said, I believe in two collaborations. The one in my office; it is a big discussion round – a continuous think tank. We sit around a table and discuss what image should be where and this among a group of people who are a part of the project team. And how the team decides is part of their operational method. We sit around a table and we have all these images and go back and forth to understand if they really describe what we want or not. And the most important part of this is that it also becomes a collective act. As a result, architecture is again not the product of a single mind. It is a group creation, and one which questions all the operations involved. For some people this would be a case of: 'Okay, to me this describes an altogether incredible space that could be used for many purposes…' While someone else says: 'No, no, I don't agree!' So we press ahead until we reach a consensus, because anything short of a universal agreement is not helping our purpose.

CV_ And what is the moment, when you also involve the client? When do you present this collage?

TB_ Well in this case – in this special project – we didn't have a client, a situation which we normally don't like. Because what we do as a rule – such as in the project of the botanical garden – is we include people and their voices from the beginning of the process. And as I said, as in the botanical garden we sought out the gardener in the same way as we sought the art collector who was the originator of the idea… And they both shared places at the same table and in the same discussion rounds. I think it is a very important part of the process. Architects normally say: 'To have a great project, you need a great client.' But for me, clients must truly understand that they really must pay in order to have beautiful spaces. For me, this means having a thorough discussion with this person. This means posing many questions and most likely getting a barrage of questions in return from the client. And, as you were saying, the answers to all of these questions will go a very long way to determining the work to be done and how we do it.

CV_ Do you also like to sketch their inputs, or perhaps histories behind the project? Or are you rather saying: 'Please, take a photo or an image.' How do you really collect those ideas and turn them into this kind of collage?

TB_ It depends. It is very different in every project. One of the things, that I also believe, is that in the same way as we are all different, all our projects are completely different. Because every sponsor, every specific situation, the conditions, the site are different… So you can see why the operations involved are also totally different and there are changes in every project. For example, we were asked to participate in a competition for the Guggenheim in New York. And they asked for only one image. Obviously they were asking for a final render. And we did a collage and we presented only the collage. We didn't win, [laughs] probably because of the collage. [all laugh] They didn't understand a thing – or perhaps they did. I don't know what effect we had, but in the case of our clients, I have proved repeatedly that our method is a very enriching process. Because when you show them a render, they stop imagining. They think it is finished. Their imagination is actually very harmful, because they also imagine that the project is going to be exactly like that. When the blond girl passing in front on the drawing happens not to be there in reality, then they are very disappointed. [all laugh] But it is not only that. I have really seen that it stops the process of thinking and the client stops questioning things. Even though they have imagined the space themselves, it is now fixed in their minds and they see it very clearly. They stop questioning. When you give them a collage instead, this is not universally understood the same way by everyone, many different interpretations are open. They now become confused and they start questioning things. 'But how is this space going to be used? But the room here is going to be very strange.' You have an endless series of ifs and buts and then you start a discussion. This is the point that really gets the client into the project. Some people in my office – like my sister, she is the one who takes care of the financial operations and is something like our association treasurer – say: 'Don't do it in such a complicated way, because that takes us more time!' But then it's more enriching.

RR_ But the concept of asking questions is actually a didactic technique used in Talmud schools, in Jewish Bible schools. You put a topic on the table dynamically by asking a question. And the answer is always a question. And then another question: 'But is it like that?' And so it goes on. Your discussion continues by the asking of questions, which is most interesting. But how can you actually give this technique of uninterrupted questioning a direction? How do you do that?

TB_I think that exactly as you say, in architecture the most important thing is to have the correct questions. So this educating technique is undoubtedly a very good one. How then do you set the direction to be taken? I think that when channels are opened for me that I question, this gets me thinking. It is already giving directions. Not giving the answer perhaps, but the directions. A background strategy can emerge from that. I think this is enriching, because it

confronts you with a constant questioning of things. Let's say that if instead of presenting a statement such as: 'This is the new way of life!' you pose a question instead and ask: 'What is the new way of life?' What is it? You now need to define this; is it really about a living and working in the same place? Mmm, no, not that. So what is the new way of life? Okay, with the new way of life a space can be more inclusive, would it be more limited or more open? You can now begin sketching, even with this bare outline of ideas. This is how we normally start.

RR_ Are you ever worried that a project might end up in a mess?

TB_ That would be nice. [laughs] That would be great! You can come to my project site. [all laugh] Everything is either completely resolute action, or it is not proceeding in very straight lines, so it is already a little bit of a mess. [laughs]

CV_ You say it is interesting and important for you, that people like this informal part and that people really overrun the place. I ask myself if this also concerns the materials you select and deal with. When does materiality enter into the process?

TB_ Well, the materiality of the building has a lot to do with the operation, with the strategy. And what normally happens is that this emerges from this connectional process of questioning and thinking and understanding. But what I do have as a basis behind the discipline is that I

consider architecture as a way of communicating between each other. It is obviously responding to a very basic human necessity, that of refugee and shelter. But secondly, it is a way of communicating, of representing ourselves individually and collectively. If it is a language, it needs to be… For me the most important thing in a conversation is to be honest. Having that in mind, we always use materials that allow us to be everything. Meaning what you see is what it is. It is the structure, the aesthetics, the final definition, the insulation… Much like what you showed me of your work, Roger, the train station… The concrete structure and everything. What you see is everything. You don't leave anything hidden away behind the visible structure. And for me that is a very good way to deal with a building, because the moment, when the architect finishes a building, that is the moment when the architecture really starts. And it starts with this first sentence; and then I hope it will always become a dialogue, a long conversation that

has different parts, different goals and different ways of evolving.

RR_ When do you invite your colleagues, let's say artists or other architects, for a collaboration? For example, as in the case of the interventions for the pilgrims' path. You said they all had very different positions, deliberately chosen different positions. This is actually the first decision you took yourself, right? To say they shouldn't be the same, but all have different positions. How does that actually come about? Do you have to come along yourself and point out that everything needs to be very different?

TB_ Well, this is not solely my decision. Perhaps I have already explained this a little bit… What we did is, we invited the architects and we walked together;as we walked we discussed what we would like to do and we decided collectively who would have which site. More specifically, we were only concerned with the first site we had to do, because that was the wish of the client. But then the project didn't materialize and, right now, we are working on a social housing project in the town of Salientes where we were asked to provide a master plan. So a little like the operation of the project in León, where I was asked by the city, we were also asked in Salientes to do the masterplan for a big new area that is being opened for development, because some powerlines there are to go underground. We completed the masterplan five years ago and then gave our okay; we had the opportunity to develop the first block the same way as it had been done in León. We began by asking ourselves how we could truly include the voices involved to create the masterplan for the block together, instead of simply imposing our masterplan on the block. This would mean having six architects informing us how to operate the overall masterplan. With this in mind we convinced the client not to finish the masterplan, but to keep a conceptual approach, to do the first block together with the six architects and then, on finishing this, to move on to the masterplan. One argument to support this was that time was available; there was no hurry. This is of course not always the case. So we arrived at the workshop with six offices set up and I said: 'Okay, this is the block and that is where you start.' 'Yes, but what are the setbacks?' they asked. 'There are no setbacks,' I answered. 'So how do we do this, how many floors do we do?' they wanted to know. Well, my invitation was like a blank page, so we could discuss each and every detail together and thrash out the best ideas for this project and for the masterplan. Once we define the masterplan each of us will be able to design our own buildings. We really did this collectively. We were together in a single room for five days, fighting things out in some cases… Because at times the whole process became a big fight, because there were two counter positions and… But nevertheless, with the six offices we collectively came to a decision about how to do the layout for this project, instead of having a masterplan. I had invited six people, each to deal with their own structure. This is how it was in León.

CV_I think you also said communication is a major issue in your architecture, but then isn't this also the case during your work? How do you manage to get into contact

with people who are not architect-colleagues? Since, as architects, we sometimes have to deal with remarks like: 'Ah, she is a designer,' or 'No, we don't talk to you.' So, when you teach for example, what do you recommend to your students?

TB_I didn't present the project of a house we did in Mexico. We were asked to design a house that would be included in a program for providing housing for people who do not even qualify for a social housing status in Mexico. We were asked to design a model house that could be replicated whenever a person approaches the government department and wherever they are from – in all parts of the country with all its different cultures. We started designing with the appropriate statistics and code only to suddenly realize that we knew no one who would really be living in this house. We thought it over, analyzed it and went to see the people. Then we said to ourselves that we will certainly have to include these people in the design process, the question was how... We went to the client – it is a big financial institution – and we asked: 'We need to do interviews to your clients. Who is going to buy these houses?' And then we went out to the future residents and asked them what their wishes and feelings were and we did a bilingual exercise with pictures and images on all the things we thought were important for the design. And we found that precisely all those things we had thought to be super important, turned out to be not important in the least for the people who were going to live there. We had to change our approach to the project completely after doing the interviews. And this is the moment when I realized how very important inclusion is. How do you include other people? You start by thinking you know the other perfectly well, but you find out that this is not the case at all, you are not able to enter the minds of the others. It is impossible. As I said in the talk, it is impossible to be the other. So, how can you be or represent the others, or at least include them in the process?

CV_ And how did you get the people to open up? Because I suspect it is very hard to find out what they are really thinking. Did you really go into their homes? Meet people in private, get them to tell their private narratives or wishes even? How do you create this level of confidence?

TB_ Some people never open up on these issues and you have to work with those who do. But, as a rule, if you try and succeed to empathize with a person, then they are open about everything; their house, their private space and the wishes they have... In essence I think this is the way we operate at all the levels. It is certainly the way we do things.

RR_I think not knowing answers as presented here is a problem of our teaching system. As an architect you are trained to know about certain conditions and problems and to believe you can solve them confidently. Saying you have no idea is not what the client wants or is asking for. You can never go to the client and say: 'Well, I don't know yet, but wait until next year and then we will try.' Right? As architects we always think we know more than others. This is because we are trained to think like this. We know more

about living, we know more about a museum, we know more about a church, while in reality we do not know very much at all. But we have to solve this problem technically. And there are always difficulties with pre-set conditions, in which we live and of which we are not really aware. There is a small art museum, a gallery near Mönchengladbach, in a former quarry and the pavilions were designed by some known and some unknown architects. The artists exhibited here are an incredible collection. And when you go there, you don't see anything and you have to enter from below. Anyone can go in; there is no security or anything of that kind! But then there is also no indication next to the painting of who the artist might be. And then confronted with an Yves Klein a visitor might think: 'How odd, this looks like Yves Klein, but there would never be an Yves Klein on display in a place like this… It simply can't be Yves Klein!' You then leave and buy the exhibition catalog and you are astonished to see it really was Yves Klein! It is unbelievable! So you notice that you don't really know about the painting. You don't even know anything about Yves Klein, even though you thought you did. And this is actually my point of your botanical garden, because you showed all the interventions and you said, there was some research done on the plants, trees and so on, but you didn't talk about them anymore. So, when people go there, what is it that they actually find so striking?

TB_I want to address the first point you have raised, because I always think that I don't have the answers and I simply don't know. It is sometimes rather scaring, like running head on into a whoops experience. But I also tell my students every semester on the first day of class: 'You know what; I am here to learn like you.' I always challenge things that I don't know and that are there to be discovered during the semester together with the students. And the more I learn, the more I think they learn… And I hope they learn more than me… So that the plan, the economic idea, functions as it should. [all laugh] On the first day of the course I said: 'You know; this is exactly the topic I have just been researching for the class, for the past six months, but I am not an expert. And we will take this ride together and see where it takes us. I have more questions than I can tell you.' And it is the same with the client… And for the second part of the question, regarding botanical garden project... The experience, as I said, was set up since the garden opened, in a very intuitive way. A description of the collection is provided and there is an audio tour with specific stops, where you can see data and specifications about the plant collections. But the overriding idea is for the visit to be a very intuitive process. You get all the signs and descriptions of the plants and the collections and they give you a little map at the start. But in fact you have much more of a possibility to discover the place yourself, in a completely intuitive way of doing things.

RR_ Is the botanical garden a museum? Is there a fence? Do you have to pay an entry fee?

TB_ There is the fence to protect the place by day and night, but entry is free. It is probably open from six to eight, I think. And the hours are now being extended, because

the garden is especially beautiful when seen in the early morning. And for this you need to have a ticket, but these are also issued free of charge. You need to go online and get your ticket for a visit at five in the morning, when the garden is in its full glory at sunrise and the colors all change. I don't remember the exact opening time but what I said is about right.

CV_ How do you convince the government or other clients of your approach? I mean, we know that as a rule, what is wanted are easy answers or something along the lines of: 'This is the best solution and that is that.' How do you convince them about the value of the informal and the 'long-term architecture' you provide?

TB_ Well, I think first of all, the people that have already worked with me know how we operate. So they either choose us, or they don't, precisely because of those things. Perhaps this is why we never win competitions… [all laugh] Zero competitive success. It is true. I mean the only competition… Well, in fact, we won two. One in Switzerland that was never implemented and the second with Swiss architects, so maybe it is because they had the solutions. And the second one is in Strasbourg, we will start with that project shortly and, once again, also with Swiss architects. So as I said, we normally ask more questions and pose more challenges for our clients than they expect, but they agreed to work like this. I don't know what it is all about – it just happened. [all laugh]

RR_ How could you convince the client that no entry fee should be paid, or ticket bought for the botanical garden? Or was this a political decision from the start?

TB_ Yes, the plan had been like this from the start. The garden had always been intended to have free access.

RR_ Mmm. I think this is one of the most important steps in a project like this. Because if you would actually have to buy a ticket, then you also have some expectations. You might expect to find an event going on inside, as in so many museums, right? And if there is no ticket, the experience is like hiking in the mountains – you don't buy a ticket for the mountains –, but the expectation of hikers is completely different from that of people who buy a ticket, right?

TB_ Absolutely! Absolutely, this is what I said about how we would be doing a museum… Even if entry to the museum would have been free of charge, there are specific expectations on entering a place like this, where everything is completely and perfectly described, you know. This can make people very uncomfortable, especially when they feel ignorant about the subject matter presented. People who know something about the topic on the other hand, experts on the subject, rarely go to the museum… Most of the people who do go are discovering the subject and the object on display. This is obviously a situation where you should not need to pay for entry. This approach is something that is really changing the possibilities for relating to the works of art. Take the

case of a person who goes running every day, and has the opportunity when doing so to pass by someone who sings a special song each time this happens, and it is a song the singer has also written. Clearly this is an unusual circumstance, but one that fits in very well with a running schedule, but not necessarily with the usual plan we might have for visiting a museum. One day for example, I was walking in the garden and a lady there, a regular visitor, spoke to me assuming I was a tourist with no knowledge of the place and I went along with this and let her tell me about everything. And she described the garden beautifully to me. She said: 'I come here every day to run at 10 AM, and I do this because there is a lady who sings to me every time I pass by. It is a beautiful song and a piece she herself composed.' And this would obviously not happen if there was an entrance fee to pay, because you would not go there every day for a run.

CV_I think this botanical garden also shows a lot the aging aspect in your work. This kind of aging, is it directly from the beginning inside your mind or part of this developing? Or when does it come into the design process?

TB_I believe you are talking about how time passes. I am fully of the opinion that this is one of the most open questions for me, because I am fully convinced that both time and people must pass through architecture in order to activate it. And my concern and thinking is about how to embrace this and also to ensure that the building itself is promoting this and encouraging it to happen. Not only

through the intervention represented by the physical presence of the building, but also how the passing of people and of time can be made very clearly present are issues that you promote as an architect. In one sense this may simply be like using architecture as a platform, but then again evolution takes its own course with this building and we have no idea where this will ultimately lead. This is because it will evolve with time and with all the people who pass through it. Perhaps with the graffiti it acquires, I don't know… That is certainly one of the things that can happen. Or perhaps something else will be involved, although I don't know quite what.

RR_ Finally architects get trapped in a psychological dilemma, which is derived from the situation of authorship. You have drawn and discussed something and finally emerge as an author. And then as an architect, or as the

team, you make the claim of authorship for a project. What is your position about your authorship in your projects, especially in the context of your presentations of the botanical garden, or the pilgrim route?

TB_I don't feel being the sole author and I think this allows me a degree of detachment from this authorship condition. I certainly do feel that what we have achieved has been done collectively, as I have said. My feeling is that this is the responsibility of us all. Perhaps this is just me and my fear of being responsible of everything that I do. It is like saying: 'No, no, it is not me. I am not responsible.' The easiest escape. [all laugh] But no, I think it is also a position of understanding and I really believe it is helpful to have more people to share the work with, because architecture is always a big responsibility. It is an activity that can really change the lives of people for good or bad. So I think that if we really act more collectively, we will be able to respond to a broader audience, than is possible when we act individually. Responding is very difficult. We don't have the answers. As you said, we actually have very few answers. We have way more questions.

RR_ So what is your position on signature architecture?

TB_I don't have a position… I never question those things. Everybody can operate however they wish. This is simply a part of the way I operate. So I don't have a position. I believe in every person who follows a dream and, as I said, each of them operating in a different way. It is a way of including them. Including those people that think differently. I clearly remember when we did this tower of Chicago. I didn't describe the process completely, but the idea was to only provide the structure in order to have a framework; then we began commissioning totally different people. Artists, but also students – many different people, and we said: 'Okay, we are doing a building. What part do you want to do? A gym, a bakery… You decide the program and you decide where it will be in the building.' The initial process with the models was all a little bit like putting a tool box together. So we arrived at the location and we received all the boxes with the work that had been done. We didn't know what was going to happen, what we would get. So we got hold of all the boxes and unwrapped them and started placing them where they could be examined – me and two people from the office. And there was one of these models about which one of the people from the office said: 'This is horrible!' And I said: 'Well, but it is what it is.' 'But we won't use it…' I answered: 'We will use it, because we wanted to include everybody. It is horrible. We think it is horrible, but the designer thinks it is great. So we put it and that is that.' [all laugh] This is the way I see it.

CV_ What is your view then about the position of architects for the future? Because I think this part played by the individual and the topic of authorship are becoming more and more prominent – as in every profession. So how do you see the role of the architect or what is coming?

TB_ Yes, as I said, I would like to see the architect as a facilitator more than an imposer. The creator of platforms and not buildings. Let's see how that can develop. I don't know.

CV_ So we are good in strategies or in coordinating…

TB_ Yes.

RR_ At the end of the lecture you made a side remark about politics – brutal politics or architecture driven by brutal politics. It is a specific position. Can you describe it in more detail?

TB_I think architecture has surrendered – like almost everything else in our lives now – to the brutal capitalism we are living in. But fortunately I think I can see light at the end of the tunnel, because I believe architecture has already passed through this phase. I see different operations happening now and I see more responsibility being taken by architects in all parts of the world; and also understanding that we don't need to surrender to capitalism nor be at the service of capitalism, but that we must create more places that are meaningful and easy to understand. This is very difficult, because the world is plainly moving, because capital is moving and others are surrendering to it. In my view this is damaging our society and it is not giving everybody the same possibilities.

RR_ When you see the glossy architectural products of today, have you noticed that they are very often built in non-democratic or autocratic states? And you start thinking that architecture should be democratic, for democratic people… But deep within us there may be some kind of autocratic move, that this is actually more about architecture. Whereas with you what I see is more the fight to sustain the democratic role of architecture. When you open up the system, you neither want nor have to be in control over things and you simply proceed to develop them, is that right?

TB_ Yes, absolutely. I believe I don't have the power to control. [laughs] Perhaps this is simply the comfortable path, but I understand that if we don't relax controls, then we will not be able to include others. And as I have said, you must be able to comprehend that everybody is not the same as you nor should everybody say the same things as you. Some people might be comfortable with less space, while others are not. So how can you produce architecture to cater for all these different people? For the one who is comfortable with less and for the one who is not.

CV_ Also, we have to show more what we can give back to the society, this kind of service and not just the building, right? Because otherwise, at the end of the day, people are not really willing to pay so much for architecture or, if they are, then it has to be more glamorous. So how do you communicate the winning part in your work?

TB_ Yes, I think that is partly the fault of the architects, but it is also part of the way the system has evolved. In the 1950s and 1960s, the architect was seen as a social

collector or translator who could provide possibilities for spaces and cities. Then in the 1980s and 1990s the entire architecture operation surrendered to capitalism in such a way that people see the architect as the person whose only freedom of decision is whether the building will be pink or blue. And I think we, architects, were also beginning to see the scope of our questions as merely: 'Should this building be pink or blue?' Fortunately, I believe this situation is changing. Architecture is taking back its role of a social facilitator, communicator and possibly a linker. I am glad that we have this power and possibility. Because, as I have already said, having a refugee, a place of encounter is valuable; it is important and it comprises many possibilities.

RR_ Well, architecture is automatically a constructed manifestation of political positioning. The political coloring is reflected in whatever building type, whether a private house, a church or a government building. We are always confronted with this in the development process and this is a fact we need to be aware of. Are there certain things, countries, or political clients you would never work for or about which you would be worried?

TB_ Absolutely. I have already said 'no' to many proposals. What I have always said first of all, is if this proposal is driven by economic considerations, it is not for me. I definitely have a very clear political position and would not work for people who do harm to others. This is for sure. In direct way at least, since you can never be entirely sure about who or what is hidden away behind something, but I always try to dig deep behind every project façade in order to be sure it is something where I will want to operate.

RR_ Is this also an issue when you are teaching? Can the students talk about that?

TB_ Yes, I talk openly about this whole issue. Yes, for sure. For example, last semester I did an academic program, because I was really angry when Donald Trump was elected. You know, his campaign rhetoric, one constant line of it was that Mexicans are all criminals. I was thinking of how I could respond in a productive way. I am forever thinking about how to do things. I am a doer, and not only a talker. So I thought the only power I have in my hands is to create knowledge. And I think, one of the possibilities of this discourse is the chance to put a finger on the lack of knowledge in so very many people about what Mexico really is and what Mexico really means. But this is actually a double edged sword. In Mexico we have a curious relationship with the USA, seeing the country and the people as 'the gods.' You know, the guiding light that we have to follow. And the American dream is behind the way our culture and economy is driven in Mexico. Not always, but nevertheless in a great many cases. Even if we still do not know very clearly what the American dream is or what the United State is. In architecture in particular, there is an incredible lack of knowledge about both of these points. In our two countries we study much about the history, the occidental history of construction. [laughs] Ranging through Egypt, Greece, the Roman Empire and

then Europe in its totality. Asia is then probably given a look-in, but we never look [laughs] up or down the background field of geography. So I decided to do a very intensive semester with many schools working in parallel on various topics. Every professor – different professors obviously – could choose what to do, how to work. We discovered many different topics, about Mexico and the USA as a region, the regional topics. This is because we have a shared economy, a shared culture and much mixing of the populations. We share the most intensively crossed border in the whole world and it is a very lengthy one. The result is we have incredible influxes of things and goods and culture. It is simply crazy to think of all this in purely political terms, and from this to step forward with the notion that we need a wall to separate two countries, rather that pointing out that what we really need is an integration, a truly integrative approach, to think over how this truly enormous region could at last really begin to work as a single region. With this in mind 15 schools worked in parallel on many different topics. We are now doing an exhibition and a book as follow-up work. This means I am really bringing these political positions not only to my professional work, but also to my academic work.

RR_ You are a person who also crosses borders. You do so just about every week, and sometimes even every day. You commute between Mexico and the States and then between Mexico and Europe. So when developing your architecture in Mexico, you are a part of Mexican society and you understand the language and the mentality in most parts of the country. But when you cross a border in Europe, let's say to France or Germany, you do not actually know all that very much about it. Is this something that stimulates your curiosity or is it a burden? Do you regard this movement as a problem, or as a potential advantage?

TB_ You know, I think there are many ways to approach this issue successfully. Firstly, in my view, I have understood that I don't actually know a thing; not even my local context. And I come to know this lack of knowledge of mine more and more thoroughly every time I travel. This is the only lesson I learn… I don't learn anything about the rest; I learn more about where I am. Previously, I was trying to operate in a place I was visiting by becoming local and blending in with the local scene, thinking that I could understand everything. But then I began to understand that I understood nothing, because you can't. What I mean is you can't know a place from just landing there and staying in a hotel. Not even when you go to the local market, mix with and speak to the local people. Yes, you will only encounter a tiny fragment, an instance of it all. As a result, I now operate with the awareness, the conscious knowledge, that in reality I know nothing about the context. But what can I bring, away from being such a total outsider? And posing this question applies equally when I invite other people to act in such a different context. Moreover, I believe this process also brings in an outside perspective that sometimes creates input and conflicts that we can then pass on as codes for projects, and which are very important since different people can relate to them.

CV_ Do you also invite people from the country involved for events, like for workshops with the students, or when you want to make an intervention in the course of a project? Do the students also have contact with other external people?

TB_ Yes, and I also teach together with other architects. During this current semester for example, I am teaching with Iwan Baan, the architectural and building environment photographer. This brings in different voices and gives the students these tools for them to apply and to act differently. And then, another thing I always try to do depending on the possibilities of the school and the program, is to bring our teaching guests to the place where we are doing the project. I try to travel with them and bring them to the location, also exposing them to different inputs along the way. At Harvard we are now designing a collective, domestic space. And we are doing this using photography and observation. But from my point of view, the most important thing that was done was bringing them all to Las Pozas. I took them to Xilitla, to a remote and fantastic garden in Xilitla created by Edward James – an English poet and artist – in Mexico. I was asked: 'Why are you bringing us to this place? It's crazy! [laughs] To a garden made by an Englishman in Mexico?' Well that is the reason, you know. Because I think you need to break out of your comfort line, but also out of your mindset and the feeling that you know everything simply by touching the context. Learning about how to start fantasizing about things can be a more important response, than to think you can go to a place and learn everything about it simply by being there.

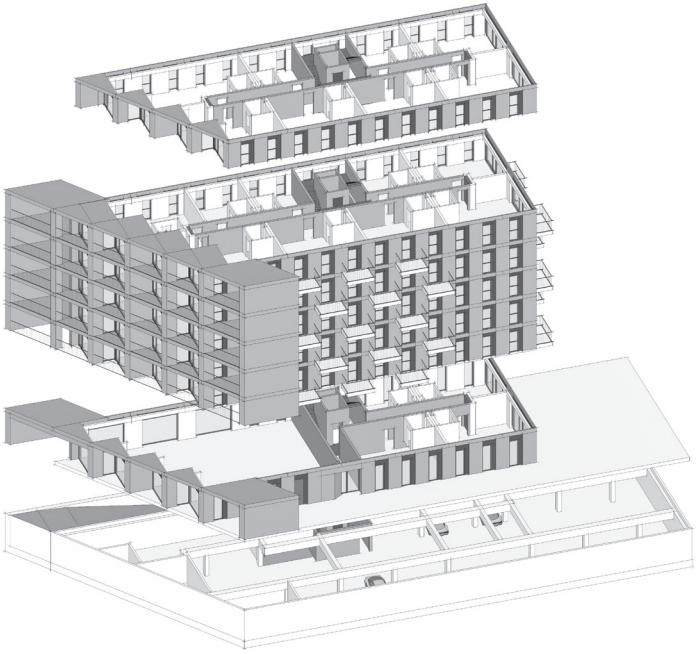
RR_I think it is about time for us to change this special context, we should move next door for some drinks and snacks and some informal further discussion. Discussion is still the main issue in this change of scene, but there will also be some food and wine. Tatiana, thank you so much for your great presentation and a wonderful discussion.

TB_ Thank you very much!

WOJCIECH KOTECKI

NOVEMBER 26, 2018

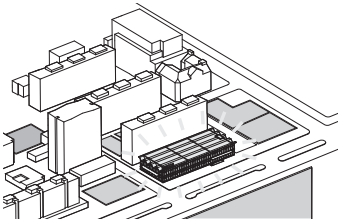
<One of these companies [that prefabricates buildings for Scandinavian countries] asked us to create a building, which will be the icon of prefabrication, just to change the negative perception of prefabrication in Poland.>



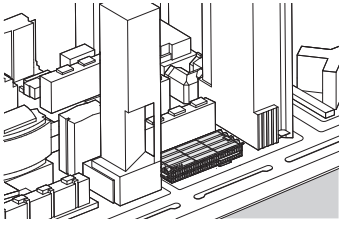
< During the communist time in Poland, it was only allowed to create a building in a prefabricated system.>

SPRZECZNA 4 | Warsaw, Poland | 2015 – 2017

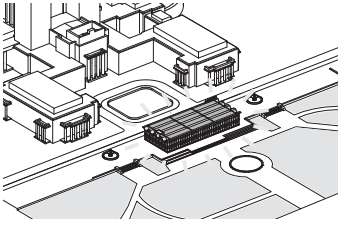
<This is one of that kind of projects, which we have initiated by ourselves.>



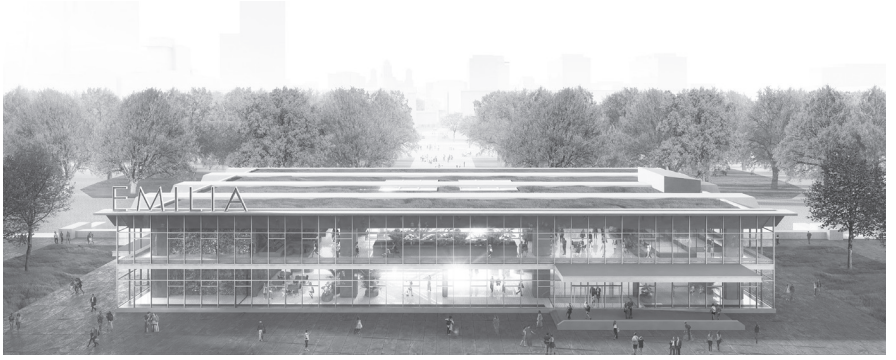
1970 original location



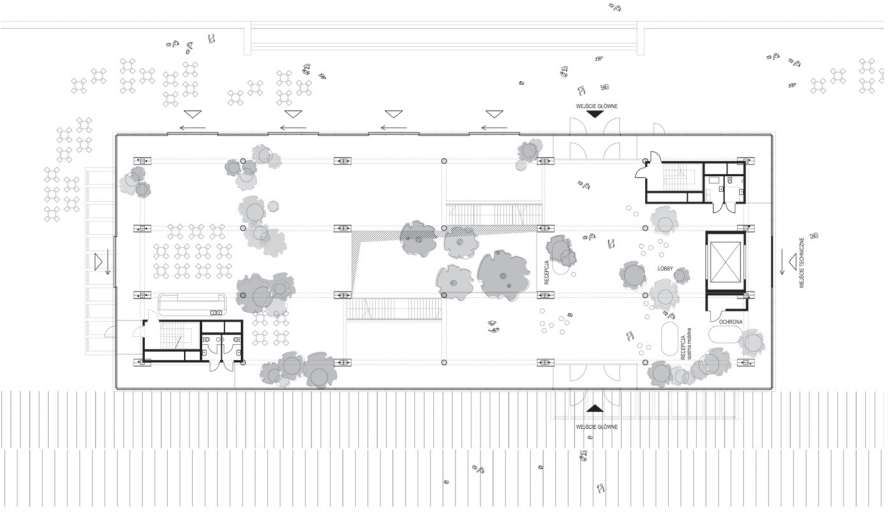
2015 disassembly



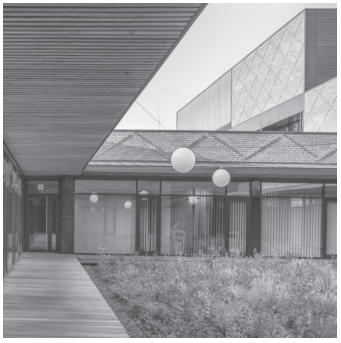
2019 assembly in new location



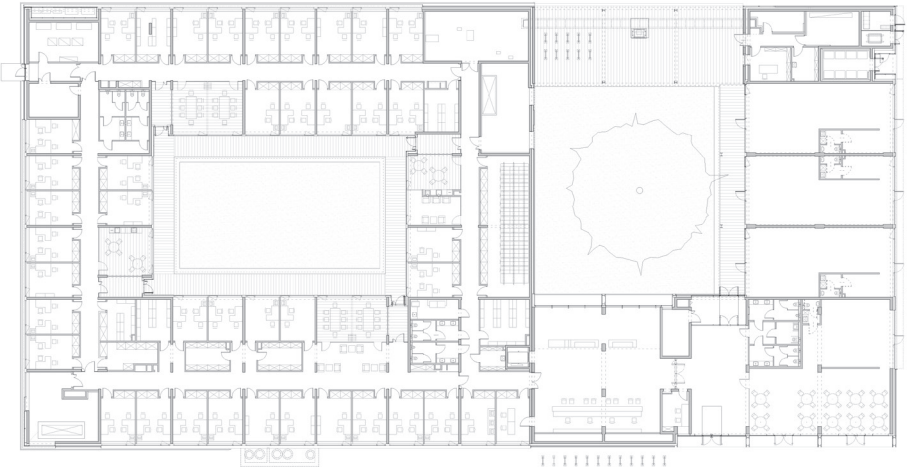
<But to save the pavilion we not only had to save the structure, we had to find the new function, which would be inside>



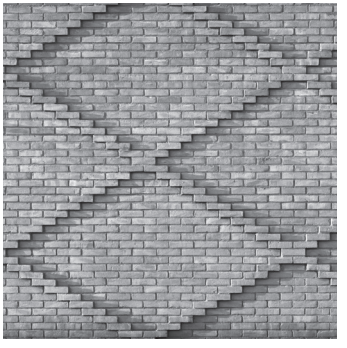
EMILA PAVILION [RELOCATION] | Warsaw, Poland | 2016 –



<The building right now is probably the most advanced and sustainable building in Poland.>



<We designed a modern office building with all the symbolic elements of a town hall.>



TOWN HALL IN KONSTANCIN JEZIORNA | Konstacin – Jeziorna, Poland | 2013 – 2018

INTERVIEW
Wojciech Kotecki

WK_Wojciech Kotecki
RR_Roger Riewe
TB_Tomasz Burghardt

RR_ Let us now continue with a discussion on some of the themes in your very interesting talk and also with a follow-up discussion. So let's move on and see what topics we have in hand concerning your work. What's really intriguing about the work of your office is the personal positioning, especially in the context of the capitalist drive of urban and real estate development. Because ultimately, we architects always depend on the will of developers to give us work – or while engaged on projects you finally notice how your hands appear to be tied or handcuffed. Looking at the last project you presented – the urban development of the shipyards in Gdansk, a harbor area – I can imagine that here the immediate focus was on trying to do something different. Either that or trying to change the development strategy. Wow is it possible for you to survive developing all this on your own? In financial terms, for example.

WK_ You mean as a contracting company?

RR_ Yes!

WK_ Is the real meaning of the question: 'Isn't it too big for your office?' [laughs]

RR_ No, but at the beginning you didn't even have a client, did you?

WK_ With the Warsaw social district? Yes, I have been talking a lot about the social situation in Poland because things are changing there and after thirty years of capitalism a new generation is just coming to the fore – and I am one of those guys. [laughs] We are not all in love with capitalism and we see that it's not only strawberries…

To give a simple straight answer to your question, we believe a way of thinking, which is much more sensitive to social issues has a great deal more potential. There is a place for ideas… I think we are good at starting the right discussions, which are not against anyone. There is plenty of space for this kind of thinking where – as in the example of the district in Warsaw – you are creating something that is not only commercial. Furthermore, the political climate and the government in Poland senses that the population has become a little tired of the capitalist world. It was against this background that we simply came along with this idea, which – we truly believe – can change the world if only a little, because we also feel we can do this without having the politicians against us. They simply take this approach as a kind of solution for their problems because, of course, everyone is saying capitalism is the fault of the politicians. So we came along with an idea, which can easily be taken up by the politicians. We will not use them perhaps, but we can cooperate with them to change the way living in Warsaw will be and appear. And from the perspective of our office, this is simply a self-financed project. We are a relatively big office. We've got fifty architects on our team and we simply decided that ten percent of them could work without having to make a profit. That they will then be able to focus purely on some things that – we think – are important. This is our approach; we are not a commercial company! We want to be able to live from our work just like anyone else. But we also attempt to realize our dreams and to do interesting things. For a company like ours, I think it is not enough simply to create beautiful buildings – we have energy and enough money put in projects, which we consider to be important… Like the Warsaw social district or Emilia. So, after two years of working without getting paid for these projects, after one and a half years of paying the project costs ourselves, the city has signed a contract with us to prepare a masterplan, which will be publicly discussed at the beginning of next year.

RR_ So, naturally your projects are based in a Polish context and also a political context. When Poland joined the European Union – which many European countries greatly appreciated and I think Poland as well – there was an immediate drainage of craftsmanship, academia to other countries; to England, Scotland, Ireland and so on. I remember that Germany and Austria were the only two countries that made use of a special European law prohibiting Polish workers coming to these countries during a transitional phase – I think ten years or something – and I thought this was a terrible discrimination. And then Polish politicians spoke out with the opposite view, saying: 'Imagine if Germany and Austria had opened their borders, then there would be nobody left in Poland!' There are huge Polish communities in London, also in Ireland. Do you think this phase is now changing, are the people coming back?

WK_ That depends. What I mean is we are quite a traditional nation and in Poland, the most valuable thing is the family. In the case of some basic job it's not easy to just go away somewhere and be happy. Most of the Poles I know, who simply went somewhere, came back

sooner or later; people are just coming back. Sometimes it takes two years, or five or ten, but I think that – maybe not all of those who left, but it's enough if half of them come back with new experience – I believe that they will make the Polish nation richer, smarter… And we stick to our nation and our families so tightly that it is really not easy to escape.

TB_ Wojciech, I have one personal question! Because, while we are talking about families, Kasia and you have six children. This is very interesting because your office partners also have a lot of kids. It demonstrates that it is possible have great big families and to make great architecture. [laughs] So how is it working out? Because, you know, my family is also here tonight and it is true, the family is indeed very important for us Poles.

WK_ Yes, this is a tough question. I would like to tell everyone here that we have a lot of kids, but we are not mentally disturbed! We just love kids. [laughs] So, together with my office partners Jan and Konrad, right now, we have thirteen kids altogether. [laughs]

TB_ What I want to say…

WK_ Yes, yes, yes, I understand the question. So, just to be serious. I had a period in my life – in my professional life – when I was working twenty-four hours a day, six or seven days a week. This was the time when I was designing the international conference center next to your [Riegler Riewe's] museum. It was a lot of fun because I got really deeply involved in the designing work. But today I think that if you're treating architecture as a hobby, it's a great way to spend each moment of your existence on it, but if you are professional, it's imperative for you to find the right balance in your life. It may sound strange, but I never design a building in the same way. The projects are not only my imagination. I also try to consider the size of the contract and the terms we must comply with. So I believe that you can give a great answer to a question but a big part of the question is not only the plot, the site, the client but also the amount of cash you have available. So sometimes you have to proceed straight to the end and if you don't have enough money to create a thoroughly individual project, you can create a logical and very simple project… Very pathetic. So that's the answer of how to be at work during the day and at home during the night.

TB_I mentioned this because, you know, we have lot of young people here in the audience and architecture is not only about work, work and more work, but also about living and founding families. It is good to see that it can all function with a family. My daughter and I were looking at one of your projects together – she is two and a half years old – and when she saw the city hall, which I think was your first project after breaking away from the big and well-known Polish architecture office JEMS, she immediately said: 'I like that!' And this one particular project… You said it was the most advanced one in terms of sustainability. I understand that you make every effort to promote environmental topics. I can imagine that this is still not very easy in Poland… This has not spread yet as a burning

national issue. Am I correct? What can you tell us about the general awareness for this topic?

WK_ This building is truly very advanced in its sustainable features but I must admit – and it's not a popular position – I'm not deeply focused on environmental issues. Of course they are important but it always depends on what project you are working on, and I have this strategy that I never work against my client, nor against the ultimate users – although it can be more difficult to define this group. Let me explain with the example of the Konstancin Jeziorna town hall. This was built in a health spa. It was easy here to show all these new possibilities to the principals and to ask them to use as many new technologies as possible. We, as architects, try to create and realize as many ideas from our agenda as possible, but we create projects or ideas together. This is our way of working.

RR_ Something which was really striking and shocking at the same time was your remark about the housing industry, which has changed from socialist to capitalist times, in that you had 100 percent prefab housing on the market under the communists. Obviously, this housing was in a way stigmatized. Then everything in the system collapsed – no doubt largely due to other factors, but possibly with this stigmatization playing a role. It occurred to me that when Costa and Niemeyer designed Brasilia – the new capital in Brazil, in the middle of the jungle, at that time for 350.000 inhabitants – the political program demanded completion of everything in a matter of five years. So when we visit Brasilia, we think what a fantastic modernist achievement and everything was so nice and you would never be able to do it again. But the problem of the engineers was how to build it in such a short time. The way they coped was to visit Czechoslovakia, Poland and Russia; not Germany, France or England, because there was nothing for them in these latter countries that would help them to build fast enough. So the only thing they could do was to check out the Russian system and those of the Czechs and the Poles. They decided to adopt the Russian system. So all the housing for 350.000 people in Brasilia is Russian made, in prefabricated system and we never recall that. In fact they transformed the system and in Brazil the method has a positive connotation… While in Poland, or in Russia, or in other former socialist countries it is now seen as negative; and that's the reason why it is being changed. It is actually a sad story, isn't it?

WK_ Yes it is... We were of course under Soviet occupation for several decades and, from a professional point of view, I have to say that the Polish systems of prefabrication were really impressive. I mean that from the industrial point of view everything was really great; you could build whole towns very quickly and efficiently. I think most of the solutions were much better than anything modern commercial buildings have to offer, which are focused only on how to sell… No one cares what will happen later. But like with every situation, when you have too much of something… And we only had prefabrication and only had Soviet forces in Poland; after 1989 everything was thrown over. We made a decision and we decided against it all. Is it worth throwing everything away? Might it be better to simply change things? We are working in a completely different period. Cities were then not just a place to live and work; their appearance resembled the Monopoly board game. Now this is a moment when we want to look back to those times and to find out if there were some good things around then, which we can implement now. For example, the program I mentioned during the presentation, that the Polish government said it would build 80.000 apartments using public funds. This is something completely new in Poland! Because in many European countries there are social programs for residential buildings, as for example in Vienna. So, this is a beginning… The intention is to do all of those buildings in prefabrication because, if you are doing things on such a huge scale it's much smarter to use this technology. Right now our office is preparing for a closed competition, for this new system of prefabricated buildings. It is like history turning full circle.

RR_ One of the issues in prefab production during the socialist period was stigmatization with no possibility for individualization, right? Because you were told there were certain typologies and all you could do was rearrange things. You can, however, take a long look and think over the site, which was given to you for this housing, using the prefab system. You just made one side remark, you said that's complicated, it's not a rectangular site and it's not typical for a prefab situation. There's also the inclination at the street… And when you have a really close look, I realize this project is highly intriguing. As a matter of fact, the balconies are non-prefab systems. Suddenly, it's an individualization of the building itself. I see this as a completely new connotation, a new paradigm for prefab systems.

WK_ Yes, the communist systems were, as I mentioned, closed systems. So you were only provided with a few identical pieces to work with and you could not add anything. One of the old architects said that using the closed prefabricated systems was like writing a poem with only five letters… The modern systems are completely different. Because, at the beginning, you are designing a building, and then the prefabs are there simply to follow the design. Of course this strategy gives you much more possibilities to fit the context, but it's also more expensive. So, for example, the system we are creating for this government investor, for those hundreds of apartment will

be a closed system – with some possibilities for adapting to the local context.

TB_ On this issue of housing in Warsaw… If we are honest, first Soviet then later – as we could see in your presentation – impressive but questionable pictures of the new housing projects. In the past twenty-five years, it wasn't really the Polish people themselves who decided what their cities should look like. It was the western powers… Did things change? Can you see a change of this sad situation? You said, many housing projects have been completed, the housing sector is really fast growing, but the urban projects – if there are any at all – are really a mess… There are no urban projects, no masterplans. Do you try to solve this or to point out the problems? And can you awake a general awareness for these problems? Do you see a chance?

WK_ Yes, during the last thirty years we were one of the best markets in Europe for investment. Our cities were simply locations for earning a good return on investments. Today we have the highest proportion of ready finished apartments in Europe. In Warsaw we have got more finished apartments than in Paris, London or anywhere else in Europe. So this is really a huge market and it's almost 100 percent in commercial hands and most… Maybe not all, but most of the money came from other countries. Sometimes it's hard to even say where it all came from.

TB_ Through Russia or through Spain… [laughs]

WK_ Yes, but I think that for architects there's not much we can do about this because it's simply a part of globalization. But I think that the people…

TB_ For example Gdansk, is it a good example for change?

WK_ Creating those projects like the Warsaw district made people much more sensitive to many more different aspects of living than merely the beauty of the façade or huge underground parking facilities. And creating ideas, such as the Warsaw social district not only provides us with the possibilities for creating some dream districts but it also shows that there is a difference… That you, for example, as a commercial developer can find different advantages for your buildings. And right now, these buildings, this project in Gdansk is the example of how these socially driven features are being used by commercial developers as an advantage. And this is something which I really appreciate. That they don't want to sell the beautiful façade but they want to sell, for example, a school on their site or the large public spaces between buildings.

TB_ But who is financing this Gdansk shipyards redevelopment project? The government?

WK_ No, this is completely private investment. But the sensitivity of the people and this impetus coming from the people... The political decision-makers are changing their approach and the developers simply have to respond

and deal with this new situation. It's not enough to create beautiful new buildings, you have to do much more thinking too. You need to be far more sensitive in social terms.

RR_ In a way this can now be of advantage for urban developments, right? And when you recall that some ten or fifteen years ago all our European cities were shrinking and the urban planners were writing new books on shrinking cities; the capitalists were completely confused because this was negative growth. How to deal with negative growth was a completely new field, but these same cities are growing again and have been for the past five years. And capitalism is now adjusting back again for positive growth. So I think this is one interesting example. Due to the fact that cities grow so fast, they need to build a lot and must provide numerous apartments; and the call is thus for prefab and modular construction… Modular construction is in a sense a jump back to the 1960s. What we now notice is that they are probably making the same old mistakes again as they are driven by the engineers to the old box of the sixties. However, things have come a long way regarding the customizing of prefab systems. So where do you think Europe, and Poland too of course, will now be heading in the context of growing cities?

WK_ Can you repeat the question?

RR_ Where do you think European cities in general, and Polish cities in particular will be heading, now that growth has returned to the cities with the pressing demand to provide a lot of new housing? Exclusively in the realm of housing and ignoring the need for schools, offices and other facilities.

WK_ Hmm! I think we are somewhere between the 19th century and the Middle Ages in the way we are creating cities or residential buildings today. This is not the way to move in modern times. Every other industry has progressed much further and is doing things in a smarter way that is appropriate for the modern global age. But when it comes to architecture and residential areas, we simply do everything the way we did in the 19th century. We were just now talking about the technology of the sixties and there's nothing advanced or new about it. I believe the critical moment will come soon [laughs] when we will have to deal with the problem of how to create residential apartments for citizens, which should be both affordable and easy to implement. And I am pretty sure that prefabrication is not the right answer in the long term. I don't know what the solution will be, but I imagine a new kind of industrial revolution is on its way. One question is, I am not sure if architects today are enough to be at the forefront of this development and to be the leaders of this revolution. But perhaps together with the officials, builders, commercial developers and the industrial companies involved, we will be able to think how to solve this problem. Because soon it will no longer be possible to build residential buildings as we know them today.

RR_ So we are expecting a new industrial revolution but we do not know yet what form this will take. You only

know for certain that the thinking behind it will be different from what we have right now. Perhaps this is also the effect of our times that everything has to be really fast. On the one hand providing new housing because of the great shortage. Simultaneously there is scarcely any time available for developing new strategies and new technologies, isn't that the case?

WK_ Yes, that's true! Of course, you have to find out how to deal with things in a new way. On one hand you have to work with a public partner, for example. This will be because of the great difficulties involved in focusing on a specific project that must be finished as quickly as possible. Our office is trying to work out some ideas. Of course no one wants to pay for finding new ways of creating monolithic structures that are more efficient. But we are trying to advance some of our ideas in projects. We have some ideas, which advanced in the course of successive projects. Without knowledge of who our clients will be [laughs] we will try to make slow use of some advanced ideas we have in projects over the next few years. You can approach the problem on your own, with some very small steps, or you might be able to find a public agency to work with on the long-term. I believe that's possible. The Warsaw social district is such a project, which would be impossible to develop with a usual contract type.

TB_I have another personal question. We worked together once and I remember the obvious fact that you are a guy who loves to design. You have many visions and architecture is your passion. What is your personal dream concerning architecture? What is your aim? Because right now you have a great office and I know that you have little time left for designing. What do you want to do in the near future?

WK_ Yes well, I've got quite a big office, but I really try to stick firmly to the statement that this is a passion, not a business. Ten years ago when I was really focused on some particular buildings, they meant the whole world to me! I think right now I am just finding out how it is to create a team and how working with other architects can be enriching. It is a very valuable experience for me. I mean that and we try to create the kind of office, which is a good environment for people to design in.

TB_ The fabric! [laughs]

WK_ The fabric. [laughs] We are not the only people who always have the right answers. To be honest, one of the projects, which has given me the most satisfaction was that one I did when I was on holiday. It is such a great feeling of satisfaction when you return to your office and find the architects on your team improved a project without you, and it has become beautiful. This is something really worth to think about. [laughs]

RR_ Sounds like a really good business model. [laughs] I will have to think about that. You have been digging into the Polish context; you understand it and can make good use of it in developing your own projects. Would you also be prepared to dare taking some steps in the European context, such as using your strategies and your ideas, in neighboring countries, such as Germany, the Czech Republic, Slovakia or even Austria or beyond?

WK_ Well… That's a tough question! I have always been curious about the world beyond my own limited horizon and have always been on the lookout for interesting new buildings whenever I was traveling through Europe. Right now I am also busy visiting many countries on seeking design possibilities, searching out new possibilities to use my own skills and opportunities to create something new and different. I have begun to think, however, that the really important issue is to have a very good understanding of the place where you design your work. Of course it would be great to have the opportunity to design in Denmark, in Austria or somewhere else perhaps, but as the years have passed I have also become somewhat afraid of this interest. The reason is that having a real understanding of other countries and their people is so very difficult and we are in any case faced with a lot of buildings, which have simply arrived from somewhere else [laughs] and do not really fit into the local context… I think that I would need a lot of time to understand other contexts and it's not enough to spend a month or so on a project. So the question really boils down to where… Because I'm by no means sure that we want to be an international office, and act like those star architects who produce the same architecture that fits perfectly into every possible part of the world. [laughs] It would be great to create a building somewhere else, but then again you must be sure, you have a proper understanding of the context. That is by no means easy.

RR_ Certainly the context is always a very important issue in all the work you have shown us and also for everything you produce in your office. But could this context also be an attempt to define a new kind of localism that is not regionalism? Regionalism has always had a richly traditional and conservative connotation. But as you say, people who have been abroad are returning to Poland and bringing the different influences with them but, nevertheless, the local context is important. In your case I would see this as being different from regionalism, don't you think?

WK_I do not experience this context visually, so I don't really focus on any kind of tradition. Of course it's worth knowing, but for me the context is mainly the social

context. By this I mean, if you understand people, you will also understand the place where you are designing, and to understand people, it is not enough to go somewhere and take some photos of the place. You need to build a deep relationship with the people and I think that it probably takes years rather than weeks to understand the context.

TB_ Understanding the context… Well it seems to me that Warsaw is again changing completely for the third time! First because of war – the city had once looked like Paris and then it was totally destroyed. After the Second World War the Soviets came and continued the destruction of the city. Right now the old modernistic buildings of Warsaw – that we all love – are being destroyed and are disappearing one after the other. And you are trying to rescue the Emilia Pavilion. Are there any more buildings that need to be rescued in Warsaw? I am asking this because I love the city and I know all the buildings you have shown us and it really hurts to know that they are gone forever. And your idea really impressed me, this proposal for rescuing something that is not even a part of the acknowledged heritage, but somehow it's heritage.

WK_I think that it's not only a case of Poland, since there is a lot of modern heritage from the sixties, seventies and also from the eighties. Buildings from the eighties [laughs], which was such a short time ago, were considered to be the ugliest buildings ever. In my view, however, some of these are treasures of their times and we should think of them as modern monuments. And I was really pleased to see the building designed by Peter Cook here, the Kunstmuseum in Graz. I can agree with the view that it does not fit in this city completely but that is not the whole story.

TB_ You just like it! When we walked around the city together on Saturday, each time you saw this building, you said: 'I like it!' [laughs]

WK_ Yes, [laughs] because it is like a memory of the time and shows how people saw the future of the cities at the end of the nineties. Today it looks really odd, but it is a kind of narrative about the way we've been thinking about architecture. It's a beautiful building of its kind… I really enjoy it.

RR_ So it's back to the future.

WK_I would never design a building in that way [all laugh] but we have to treat buildings from the sixties, seventies, eighties seriously even if we don't understand why they were designed that way.

RR_I've noticed we're now opening many new doors of discussion but I would also be pleased now if you can focus on the social context – we were talking about just now – and use the opportunity of socializing this evening with the whole crowd. So Wojciech, thank you very much for being here with us this evening, for your wonderful talk and the great discussion!

WK_ Thank you very much!

Jürg Conzett_**Chur**

Born in 1956, citizen of Schiers [Grisons, Switzerland]. He studied civil engineering at the Eidgenössische Technische Hochschule [ETH] in Lausanne and Zürich and received his diploma in 1980. From 1981 until 1988 he worked as an employee of Architect Peter Zumthor at Haldenstein. After this architectural experience he decided to start working as an independent consultant structural engineer. Today he leads an engineer's office of about 25 people together with his partners Gianfranco Bronzini, Josef Dora, Pieder Hendry and Joël Bögli in Chur. Their main activities are designing structures for buildings together with architects as well as working on projects for bridges and bridge repairs. Jürg Conzett was teaching structures at the Fachhochschule Chur for about 20 years. In 2011 he spent three months teaching at the Graduate school of design at Harvard University.

www.cbp.ch

José Morales & Sara de Giles_**Sevilla**

José Morales founded the architectural firm in 1987. In 1998 Sara de Giles Dubois joined the studio as a new partner. In 2004 the firm was consolidated as MGM, Morales de Giles Arquitectos. The teaching character of the components of MGM team implies a great interest in typological and formal research, and in a constant exploration of new scenarios of the present architecture. Morales de Giles pursuit on their projects new possibilities of relation spaces and spaces in between. They reflect a careful study on its entire development process, both in the technical projects and in the execution of the works; MGM has been recognised by public and private institutions which highlighted the quality of their works thorough numerous national and international awards.

www.moralesdegiles.com

Tatiana Bilbao_Mexico

The work of Tatiana Bilbao Estudio begins analyzing its immediate local context translating rigid social codes into architecture through a multicultural, multidisciplinary perspective. The studio's architectural work includes: the Culiacán Botanical Garden; the Pilgrimage Route in Jalisco; the Biotechnological Center; the Sustainable House, the social housing prototype displayed at the 2015 Chicago Biennial that costs under $8,000; among other projects. Tatiana's work has been recognized internationally with awards such as the Kunstpreis Berlin in 2012 and the Global Award for Sustainable Architecture in 2014. She cherishes the opportunity to engage with students and has taught as a visiting professor at the Yale School of Architecture, Rice School of Architecture, and Columbia GSAPP. Her work has been published in A+U, GA Houses, Domus, and The New York Times, among others.

www.tatianabilbao.com

Wojciech Kotecki_Warsaw

BBGK practice is led by three partners Jan Belina-Brzozowski, Konrad Grabowiecki and Wojciech Kotecki. All three owners are architects and urbanists, graduates of the Faculty of Architecture, Warsaw University of Technology. BBGK is an architectural firm with extensive experience in monuments, public buildings and residential buildings. They have successfully won prizes and design awards [Katyn Museum, Targówek Fabryczny, Konstancin-Jeziorna Town Hall]. They design individual architecture strongly associated with the existing context, as evidenced by the Katyn Museum, which was commissioned in 2015, was awarded in the plebiscites and was a finalist of the Mies van der Rohe Award. Recently, in September 2018, BBGK had an exhibition 'Manifesto of Prefabrication' at the Architektur Galerie Berlin.

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