



CLIMATE ACTION AND ARCHITECTURE

EPISODE 4 | TRANSCRIPT

00:18 MONA LEMOINE: We acknowledge that indigenous peoples are the traditional guardians of this land we call Canada, in which we gather here today. We acknowledge the historical oppression of lands, cultures, and the original peoples of this country and know we have a role to play in the path to decolonization that we shared together. We recognize our duty to fight for indigenous rights to be restored and commit ourselves to the journey of healing. We thank the 630 First Nations, their people and ancestors who have taken care of these lines that we share.

00:53 MONA: Let us take a short pause, so everyone can reflect on their own acknowledgement and relationship to the land, and be grateful for the diverse indigenous peoples whose ancestors have taken care of the land for centuries.

Theme music

01:14 MONA: This is the RAIC podcast on architecture, and I'm this season's host Mona Lemoine. This season is part of a series of activities and events leading into the 2021 Congress on Architecture, and the development of a Climate Action Plan. The RAIC 2021 Congress on Architecture will be held on October 4, 2021, world architecture day, and will address climate action and architecture in Canada.

01:42 MONA: In this episode, RAIC Congress on Architecture Steering Committee member, Joanne Purdue talks with World Green Building Council CEO, Cristina Gamboa about how the World GBC's network is taking action to deliver a net zero carbon, healthy, resilient and equitable built environment.

02:01 MONA: Prior to joining the university, Joanne spent 15 years as a practicing architect focused on healthy and high performing green buildings. She is an ardent supporter of preparing future leaders, and of empowering women to accelerate the transformation to a sustainable future.

02:14 JOANNE PERDUE: My name is Joanne Purdue and I have the pleasure of welcoming Cristina Gamboa to this episode of the RAIC podcast on architecture. Cristina Gamboa is the chief executive officer of the world Green Building Council, the strongest local regional global network of 70 green building councils and their nearly 36,000 members, catalyzing the uptake of sustainable building score for everyone, everywhere.

02:30 JOANNE: Prior to joining the World GBC in November 2018, Cristina was CEO of the Columbia Green Building Council. Thanks to her active, committed and collaborative leadership style, she achieved multiple milestones, being enabled sustainability infrastructure to become mainstream in her home country. She also has expertise in the fields of economic research, journalism, and international affairs. Cristina thank you for joining us today.

02:50 CRISTINA GAMBOA: Thank you Joanne and thank you so much for the invitation, I'm very happy to join you.

03:00 JOANNE: Cristina, for those listeners that may not yet be familiar with the World GBC, can you provide a short introduction? What is your purpose? Who is your membership, and how do you work as a global convener?

03:31 CRISTINA: The world Green Building Council, Joanne, is a network of networks, and we're here to change the built environment. And we are also keen to not leave anyone behind in this transformation. That's why we say sustainable buildings for everyone, everywhere. We strongly believe that there has to be holistic sustainability answers to the challenges we face today.

04:05 CRISTINA: And that means that the World GBC as you said with 70 Green Building Councils around the world and other stakeholders to bring awareness on all the actions that can be taken place in that a holistic view of sustainability, that for us means, including climate action, health and wellbeing and resources and circularity.

04:19 CRISTINA: And what we do is basically agree if you like on a set of principles, right, that can shape and improve our built environments. And those principles of course are intended to deliver through those holistic actions in a sustainable equitable healthy and resilient world, right, for humans to prosper and for nature to also regenerate and come back and join us in our journey. So, the World GBC will set those principles and our green building councils drive them forward and make them relevant to their national and local realities.

04:38 CRISTINA: We also with those, co-create let's say, are the opportunities to drive forward this change, and in particular, of course, to continue to champion and bring awareness that there cannot be a sustainable future without addressing cities, regions and all the infrastructure that is existing and will happen into the future.

05:02 JOANNE: Cristina, we have mounting data on buildings as a key solution to the climate crisis. For example, the UN's 2019 Global Status Report for the building and construction sector highlights those buildings and constructions and operations contributes to nearly 40% of global greenhouse gas emissions.

05:32 JOANNE: Cities are also described as carbon hotspots in the global carbon project, which identifies those buildings and other infrastructure represents over 70% of human made carbon emissions. Given the mounting data, why have buildings so often remained a blind spot in global climate negotiations?

05:41 CRISTINA: The built environment has had a history of complex supply chains and a fragmented sector, meaning that it has been often overlooked because it is hard to grasp and hard to act on. However, there's change and there's momentum building. We are now in a better position to explain to policymakers and negotiators that a building's life cycle and their investment cycles, even though they're on long term processes, right.

06:10 CRISTINA: That doesn't mean that they have to take a backseat in negotiations. There has to be a vision. In the past, there has been some barriers, right, addressed principally going through energy efficiency and buildings but now the matters are more urgent. We know from the climate science and from the sustainable development goals that we need to decarbonize fully at the latest by 2050.

06:42 CRISTINA: And so, I guess now, in global climate negotiations there's a realization also, that if we can deliver on those carbon emissions reductions in a very cost-effective way; addressing the built environment, and also creating millions of jobs that can be really at the center of this transition.

07:04 CRISTINA: In that context and also, I think it's interesting to share that, in past negotiations, buildings have not been really in the agenda and in COP 20 they were partially addressed, there was a Building's Day. And five years on and after the Paris Agreement, this year the UK Government has accepted it to host a cities, regions and built environment day, meaning that this topic is going to be across every day, at COP26 and Glasgow, between the 31st of October and the 12th of November.

07:31 CRISTINA: And also, meaning that all the campaigning we do, all the awareness raising we do, all those opportunities will have the opportunity to be heard by negotiators that are expected to be more ambitious in their policy commitments, by us championing that this is doable, that we can cut those energy related emissions from the built environment which are 40% that you mentioned, and that it's a matter of building that ambition. Having policymakers drive forward a division of the possible by the private sector and the public sector enabling further change. Yeah, it's been overdue.

08:16 JOANNE: For the upcoming COP26, I just wanted to clarify; so, there will be buildings across the event then as opposed to an individual building's day?

08:28 CRISTINA: So for us, the campaign will start from the first day of COP. There are other days, the energy transition, there's also nature-based solutions, other topics like that where the built environment is also critical to enabling those matters. And we will bring heightened awareness with the support of the UK Government and in particular the high-level climate champions.

08:52 CRISTINA: There is right now, a moment where there is a synergy of positions that has been enabling us to drive forward the messaging in a much clearer way than in previous climate negotiations and that's the golden opportunity, as we have several like three to five key pillars we're driving forward. And I think those are going to make a huge difference - not only for what is happening in 2021, but to build a legacy of climate action in the built environment.

09:24 JOANNE: Fantastic. And what outcomes do you hope for from COP26?

09:29 CRISTINA: So let me start maybe, bringing down the five priorities that we think around the campaigning, around that theme of cities, regions, and building environment date and then we can go and scale them up. Do they measure up to be a successful or not? And I guess the first one, of course, is to establish that the built environment is a critical sector for climate action in the economic recovery.

09:53 CRISTINA: This is a matter that sometimes is not top of mind yet, and we need to rally and champion it strongly. We want wider recognition for the potential the sector and climate action. That means, of course, its potential in mitigation, adaptation and resilience, but also the Build Back Better campaign, which means maximizing job creation, with health and equity benefits.

10:17 CRISTINA: So we want to see cities and regions also recognized in their critical policy enabler's function, and also as market demand drivers. We know cities and regions can do better government procurement and drive all those principles forward.

10:32 CRISTINA: So, one: critical sector. Two: we are uniting the fragmented sector in one voice and one ambition. And that ambition is to drive forward the goals that are also expressed now in a document called America's Partnerships, which establishes that by 2030 all buildings, infrastructure and renovations have to have at least 40% less embodied carbon and be 100% net zero operational carbon.

11:00 CRISTINA: And second, that by 2050, we have to fully decarbonize build environment, and that's the one voice. We have goals established. We have them in the UN Framework to make that clear. Third is, of course, have all stakeholders including yourselves engaged and committed to the potential of the built environment and its fight against climate change.

11:29 CRISTINA: And by that, I mean that there is the potential to have a rollout of the key transformative measures being implemented today, share those best practices and case studies among policymakers, the investment community and business so we can drive forward that journey to net zero and cut down the knowledge gap if you'd like.

11:51 CRISTINA: Fourth, of course we want to see action solutions and pathways. And by that, I mean we want to turn the rhetoric around zero to implementation. And so, those national pathways, what you were mentioning, that building sits in the Canadian in DC, it's ultimately about one goal: to accelerate that journey.

12:11 CRISTINA: And fifth, of course, it's bringing that radical collaboration. And that means the cross sector in dialogue from investor in ownership to the ones that are building and also the owners to further move these ambitions forward. What success would look like in that long introduction is - and sorry for that long one but it's such a big opportunity - is that we need a breakthrough statistics at COP26 which we're working for. And that is through race to zero. Have you heard about it?

12:48 JOANNE: Yes, yes, very much have heard about the race to zero. I was gonna say I believe it's now the largest ever global alliance of organizations committed to reach net zero, no later than 2050. And representing substantial GDP and global carbon emissions it's very exciting.

13:10 CRISTINA: Yes, exactly. And so, for example that voice of Canadian architects, of Canadian businesses, local governments by joining grace to zero, you can actually drive forward that momentum and that breakthrough moment. We have the built environment as a goal. That breakthrough is that we need 20% by revenue of every sector, committing to the race to zero.

13:35 CRISTINA: And we're close. So, the moment to ask them to join us is now because in that way we will send

that signal that this acceleration point is going to happen. And then we can aim to move further and faster as a high-level climate champions expressive.

13:58 JOANNE: The RAIC provides a national voice for Canadian architects. How could the RAIC support this effort?

14:04 CRISTINA: So, I would say, to explain to all your constituencies, how to join the race to zero. There's also a pathway, which is a front runner initiative which is World to PCs. It's net zero carbon buildings commitment and it's a front runner because of race to zero calls for net zero by 2050. World GBC is advocating to advance decarbonization by 2030, right. And we have cities, businesses, and other stakeholders committing to that vision.

14:43 CRISTINA: Because, further than committing, it's of course sharing the best practices inherent to that commitment. When you are ready to be at that level, you're ready and expressing we've got this and we're ready to share.

14:54 CRISTINA: And, and it's critical because we see that cities need to transition to a low carbon and resilient future and that needs all the depth and knowledge and the capacity of designers, of engineers, to really get the designs today correctly because of that infrastructure is going to be with us for a very, very, very long time.

15:10 CRISTINA: And so, tapping into the bug campaigns, making it relevant and significant for those who are already in the journey. And of course, identifying those that maybe are not there yet, to let them know also that if they join today, this transformation, they will also be ready for the future policy changes.

15:36 JOANNE: One of the big questions that is weighing heavy on my mind is the ecological impact of the resource consumption required to do this work, particularly if we follow a business-as-usual model. There are also equity questions in terms of who gets access to finite resources in a global supply chain. How is this conversation unfolding in the international green building community?

16:02 CRISTINA: How to go about those massive resources. That's why we feel so strongly about that holistic definition of sustainability.

18:03 CRISTINA: We have to bring forward the technical topic of scope three: of embodied emissions, and hopefully there will be a roll out in the price for carbon, for all of those negative externalities to be properly addressed from an information perspective, from a procurement perspective and that solutions from, you know, the performance of how you design the infrastructure, the assets, is prioritized. And that will make the trickling down of where those resources are sourced from a more important conversation.

18:48 CRISTINA: I think that's very important. And from the other side is also understanding that we need for people to also care about the quality of the infrastructure, it means there has to be like a more approachable data set. If you like, for them to understand what quality infrastructure is. And right now, there is a gap.

19:15 CRISTINA: There's a big information gap. In the building side, we've advanced a lot in sustainable buildings. From the infrastructure side, and the gap that builds community and cities, we need a better conversation on what it means to have the clean energy transition, decarbonized grids, transportation that promotes electric vehicles; buildings that are hopefully electrified; the natural gas debate is a huge one.

19:45 CRISTINA: And that we unlock a better design state, better operations in this unity of policy federal locks, you know, those better ambition loops, I'm gonna say again. How the information is better, made in different spots of the value chain.

20:02 JOANNE: Vehicular material flow, so, circular economy. To me, this offers a very interesting opportunity i we think about the resource flows. Because if we understand we have to keep ecosystems intact, because they help us in so many ways, then the circular material flows provide us a new model for thinking about the resources that will be required for this massive transition.

20:25 JOANNE: I'm wondering what you see in terms of emerging trends, from an international perspective, on the circular economy and are there some leading models that Canadian architects can look to?

20:40 CRISTINA: There's a lot of momentum in the circularity space and this is like an IT moment for many, for a lot of people. It's a big moment for all those people, technical in the scope three embodied carbon. But also now they're saying yes and circularity without circularity that decarbonization, we're not fully materialized. We need circularity to really address decarbonization and trends. Europe again is a trendsetter here, in terms of EU policy.

21:11 CRISTINA: There's this initiative called the EU taxonomy for sustainable activities. It is actually a classification system that is clarifying which investments are environmentally sustainable in the context of the European Green Deal. And the aim is to prevent greenwashing and help investors make better choices. And for example, within that idea, there is a trend to leverage digital tools to enable much greater reduce rates.

21:38 CRISTINA: So one is for example, material passports. And those for example are being developed for new materials, but also to scan, right, and support the identification of materials that can go into existing buildings. Yeah, there's all this debate also of avoiding the toxicity, getting out the toxicity of the system and not recycling that into solutions.

22:03 CRISTINA: And actually, Joanne, there are some companies that are starting to offer end to end solutions for logistics to connect suppliers or the reclaimed products and materials with new projects to close that loop. So, materials passports are really interesting. There's even another conversation of passports for buildings, but that's another matter now to 50 years' time, how do I break it down.

22:27 CRISTINA: And I guess it from that perspective, it's like unlocking the two main benefits of this more circular economy through the built environment and of course, I cannot go without mentioning the first one is health. Circular buildings can be healthier, right, because there is no place for toxic materials as I said or chemicals in a circular system, so we can actually have a positive effect, right in the indoor air quality for the occupant. Circularity is pretty much there in that conversation.

23:02 CRISTINA: And the second one is like this economic benefit, right, because circular buildings can offer the end-of-life materials treated as a commodity, and then they can also offer this revenue stream when utilized with other projects. And then those two trends and the third one, which is unlocking the decarbonization is a good one for it.

23:15 CRISTINA: Also to show, because as we address greater transparency and materials, greater understanding of their performance, how can we close the loop in the end of cycle that is also enabling the business case for decarbonizing buildings?

23:30 JOANNE: In our first podcast Seth Klein, author of A Good War: Mobilizing Canada for the Climate Crisis, uses the analogy of mobilizing for the war effort to drive speed and scale in action. He identified four markers that signal a government knows it is an emergency.

23:48 JOANNE: They spend what it takes to win. They create new economic institutions to get the job done. They move from voluntary to mandatory measures, and they tell the truth about the severity of the crisis. Does this resonate with you, and if so, in what ways?

24:03 CRISTINA: Across our network of green building councils and partners, we're seeing these indicators. As mentioned, I said, because these are signals of governments that are taking climate action seriously. Be through investments, new economic institutions, stronger regulations and transparency. And I guess I can share some examples of that in the UK.

24:27 CRISTINA: I'm a Colombian living in London. So that's why I'm starting there. But let's say there's a New London. There's a New London Planet, 2000 years. The city has a new logo which came into effect of March in 2021 and it's an introduction of new mandatory measures that are pioneering, actually, embodied carbon levels in proposed buildings regulating the embodied carbon levels in buildings.

24:56 CRISTINA: So the mayor actually is requiring that all major developments be net zero carbon. As outlined, they have some guidelines and stuff, it can get very technical as you know. What I want to say is that the policy means that all schemes will be required to calculate whole life cycle carbon emissions, through a nationally recognized assessment and demonstrate actions taken to reduce them and that's really brilliant.

25:23 CRISTINA: And there's others for example. Denmark has a commitment to reduce its emissions by 70% by 2030. And in the building space they have an ambitious reduction for embodied carbon and they've included building regulations supported by its parliament. And this new policy covers both operational and embodied emissions in buildings, but it also has a phased manner to address, large and small buildings, so it covers all asset classes, and that is outstanding.

25:55 CRISTINA: And finally I would mention in the United States have in your mind, the Clean Future Act, CFA, introduced in March, 2021, which is setting a national goal to achieve 100% clean economy by 2050 with the interim goal to reduce greenhouse gas emissions by at least 50% by 2030 from the 2005 levels. And that's super important, because it includes how buildings are in that, in that enabling mode.

26:23 CRISTINA: Actually, that act includes that all buildings built by 2029 have to use at least 50% less energy compared to current codes, and all the buildings built in 2030 have to be zero energy ready. So, this is the agenda in action.

26:45 JOANNE: It's very, very exciting and I really liked the emphasis on a new focus on embodied carbon and perhaps that also as we begin to regulate embody carbon, maybe then we will also see greater investment in existing building renew. You know in North America we are, we're very quick to take down and build new.

27:10 JOANNE: In our second podcast, Dr. Harriet Harris, Dean of the Pratt Institute School of Architecture, highlights that the climate crisis is an equity crisis. Next year marks the 20-year anniversary of the crafting of the Bali Principles for Climate Justice, which affirms among other items, the rights of indigenous peoples to participate in planning and decision making and the rights of youth as equal partners in the work to address climate change.

27:45 JOANNE: What are we missing when we exclude diverse voices and indigenous knowledge from this work?

27:42 CRISTINA: We were missing so much because there's growing evidence that we need to address inequality and climate change together. There can't be that trade off. Unfortunately, most climate action plans currently lack concrete actions to ensure benefits for the most vulnerable.

28:03 CRISTINA: We checked the nationally determined contributions are what countries commit to now to say, how am I gonna achieve the Paris Agreement? And in the updates, only 10 of them have Just Transition Plans. The countries with credible Just Transition Plans are a few; in Latin America, the EU, Kenya, Spain, so just a few, there's not many.

28:28 CRISTINA: So there has to be something that has to change. And, yeah, we miss a lot, because we won't be able to really address the risks that people that are disproportionately affected by climate change are facing on the ground without bringing them into the conversation.

28:54 CRISTINA: Yes, yes because who's at the table matters and how the conversation unfolds. And certainly, indigenous voices bring, I'm going to say, very different temporal perspective, both in terms of looking back and looking forward in thinking about where we are.

29:12 CRISTINA: The most vulnerable are out of the table. For example, last year in my home country of Colombia, an island, that has 5000 people, all of them had their homes wiped out by a level five hurricane in one night. And then the planning on how to go about restoring their island is not made by them. It's imposed.

29:35 CRISTINA: No policymakers have come in and fly and they are not even designing to their local architecture. what they like, how they live, and then the cultural aspect of that rebuild is gone. Right. And so, they lose a lot.

30:00 CRISTINA: But also, in terms of the climate issue, becoming a social justice issue, as I said, 4 billion people are vulnerable and without really collaborating with communities that are most impacted by that social injustice, climate injustice, we will not have the opportunity to embed resilience locally. Because indigenous peoples of course are vital and connected to their place.

30:38 CRISTINA: They have the knowledge tools to protect the ecosystem services. And if we hear them, we may learn a lot more about resilience. And so, we have to learn to listen, we have to learn to respect, we have to learn to

facilitate and to acknowledge that we're here to serve others. Not only to just weave in one size, kind of, solution fits all.

30:55 JOANNE: Yeah, totally agree Cristina. You know, the concept of designing for resilience without taking into account the knowledge that's there on the ground and the deep knowledge in terms of the land and the culture and the history of a place. It's hard to imagine how we can achieve resilience without that.

31:12 JOANNE: And my closing question is, what are the ways that the RAIC and its member firms could strengthen engagement and global partnerships and the international effort to enable a just climate transition?

31:24 CRISTINA: The most important thing is to continue championing best practice that can have lessons learned for global efforts. And by this, I mean that there's a lot of thirst for knowledge, for best practice. And we have a lot of diversity at the World Green Building Council.

31:52 CRISTINA: And I would like to offer up our network of those leaders to connect more because they are driving with our membership national, regional projects that involve, you know, all elements of sustainable development of the built environment.

32:10 CRISTINA: And by supporting for example, the uptake of lessons learned in decarbonizing buildings, and, you know, for example, all that sensibility that you bring into place-making, hearing voices, making solutions matter for people that need it the most, is something that the world could build upon.

32:30 CRISTINA: So I guess it's about dialogue, collaboration. and those global partnerships in the World GBC and to the US process where right now we have these high-level climate champions which are really sensitive to this; those are the places where we can connect those efforts and make those connections for systems change to move at the pace and scale we need.

32:56 JOANNE: Cristina thank you so much for the conversation today, we so appreciate your time.

33:02 CRISTINA: Thank you so much for having me, I'm really honored to be here on the shoulders of so many leaders including yourself, thank you so much for the great work you do.

Theme music

33:22 MONA: Thank you for joining us. That was an RAIC Podcast on Architecture episode featuring World Green Building Council CEO Cristina Gamboa. That concludes the final episode of this season's RAIC Podcast on Architecture. Registration for the RAIC 2021 Congress on Architecture is now open. We hope that you will join us on October 4th 2021 for the chance to exchange, network, and learn from some of the industry's most influential leaders in climate action and architecture. Visit www.RAIC.org/congress2021 to register for Congress and to tell us what you thought of this season and its episode.

References:

Bali Declaration

"Fundamental Principles and Rights at Work: Towards Commitment and Action (2018 Update)." Bali declaration - Policy briefs: Fundamental principles and rights at work: Towards commitment and action (2018 update), December 19, 2018. https://www.ilo.org/asia/publications/issue-briefs/WCMS_613509/lang--en/index.htm.

COP 22

"COP 22." United Nations Climate Change. Accessed July 16, 2021. <https://unfccc.int/process-and-meetings/conferences/past-conferences/marrakech-climate-change-conference-november-2016/cop-22>.

COP26

"UN Climate Change Conference (COP26) – Glasgow 2021." UN Climate Change Conference (COP26) at the SEC – Glasgow 2021. Accessed July 16, 2021. <https://ukcop26.org/>.

Nationally Determined Commitment (NDC) COP 26

"Nationally Determined Contributions (NDCs)." United Nations Climate Change. Accessed July 16, 2021. <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/nationally-determined-contributions-ndcs>.

Paris Agreement

"The Paris Agreement." unfccc.int. Accessed July 16, 2021. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

San Andrés archipelago's reconstruction after hurricane Iota and Eta

Ministry of Infrastructure and Water Management. "A Recovery Opportunity for Providencia Island in Colombia." News item | Climate Adaptation Summit 2021. Ministry of Infrastructure and Water Management, January 25, 2021. <https://www.cas2021.com/latest/news/2021/01/19/providencia-island-in-colombia>.

United Nation's Race to Zero

"Race To Zero Campaign." unfccc.int. Accessed July 16, 2021. <https://unfccc.int/climate-action/race-to-zero-campaign>.

World Green Building Council Net Zero Carbon Buildings Commitment

"The Net Zero Carbon Buildings Commitment." World Green Building Council. Accessed July 16, 2021. <https://www.worldgbc.org/thecommitment>.

Closed captioning and/or transcription is being provided as a public service solely for the convenience of our audience with the purpose of facilitating communication. The Royal Architectural Institute of Canada (RAIC) does not review for accuracy any information that appears in a transcript. RAIC makes no representations or warranties, and expressly disclaims any responsibility or liability with respect to, any errors or omissions in, or the accuracy, reliability, timeliness or completeness of, any information that appears in a transcript. In case of any inconsistency between the transcription and the audio recording in the original language, the latter shall prevail.