GEM – Expert Events Season 4 – Summaries & Transcripts

Event Series: GEM Green Screen International Lecture

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GEM – Expert Events Season 4

Event Series: GEM Green Screen International Lecture

Goran Pavlić, Academy of Dramatic Art, University of Zagreb, Croatia
Małgorzata Kotlińska, Polish National Film, Television and Theatre School in Lodz, Poland,

Introduction

This document summarizes the fourth season of the **Green Screen International Lectures** and transcribes them in full length.

All events can be viewed in full length on YouTube:
https://www.youtube.com/@gem0922

In the fourth season (Autumn 2024), curated by Goran Pavlić, Academy of Dramatic Art, University of Zagreb, Croatia, and Małgorzata Kotlińska, Lodz Film School, Lodz, Poland, the focus is on wider social issues that intersect with sustainable film production.

Event 1 / Season 4

Sustainability and Media: Political Ecology meets Creative Production

Date/ Time: Tue, 5 Nov 2024 15:30 - 17:00 CET

This meeting marks the opening of a next season of events dedicated to Perspectives on Environmental Impacts. This season is going to be curated by Goran Pavlić, University of Zagreb, Croatia and Małgorzata Kotlińska, Lodz Film School, Poland, with focus on widening sustainability issues beyond narrower ecological issues, i.e.

The guests of the meeting are:
Vedran Horvat, sociologist specialised in human rights, currently the managing director and Head of Zagreb based Institute for Political Ecology since 2015. Prior to that he worked as the country director of the Zagreb office of Heinrich Böll Stiftung, a German green political foundation. Since 2012 he's been the national correspondent for Green European Journal and from 2012 to 2017 he was the managing board member of the National Foundation for Civil Society Development, member of the board of directors of the Brussels based Green European Foundation (since 2019) and associate of Amsterdam based Transnational Institute.

Morana Komljenović, producer and author with more than 20 years of experience in the audiovisual industry. Morana mostly produces other people's creative ideas, although her debut film "Naked soul" was shown at the Sundance Film Festival in 2001. The last international project she produced was "The Golden Thread" by Nishtha Jain, which was declared the best international film in India in 2024 at the prestigious Mumbai film festival. For about ten years, she led a recognisable documentary production - Fade In, and gained international experience as a co-producer, mentor, acquisition manager and decision maker at Taskovski Films from London. She founded Little Red Dot in 2018 and mostly works on the development of international co-productions, transmedia projects, education and empowerment programs. She often collaborates with Creative Europe Desk - MEDIA Croatia Office, the Croatian Audiovisual Center and Eurimages. She is a member of the EAVE expert network and an active member of the Board of Directors of the Filmmakers Association of Croatia, and president of the Production Branch. She teaches the course "Financing in the Media" at the Academy of Dramatic Art in Zagreb.

The conversation will focus on multiple issues concerning social and political aspects of film and visual media production. The lectures will explore social sustainability in creative industries, focusing on issues of integration, equity, and political ecology.

Speakers:

- Vedran Horvat, sociologist, director of Institute for Political Ecology in Zagreb, Croatia
- Morana Komljenović, film producer and author, teacher at the Academy of Dramatic Art in Zagreb, Croatia

Curator and Moderator:

- Goran Pavlić, University of Zagreb, Croatia
- Małgorzata Kotlińska, Lodz Film School, Lodz, Poland

Summary of the Kick-Off

This autumn's series started with two complementary lecture, one more theoretically based, and other firmly rooted in substantial experience in film production and policy making

In the first presentation, sociologist and head of the Croatian Institute for Political Ecology, Vedran Horvat, presents an overview of the most urgent problems political ecology is dealing with. Vedran starts with advocating for a bottom-up approach in dealing with environmental issues, always taking into account local specificity. Political ecology questions power relations always present in every set of policies and problematizes distribution of power and resources even in the field of environmental policies which should benefit all in principle. Moreover, political ecology strives to reimagine even basic concepts that our everyday production relies on. What should be produced, using what technology and for what purposes aren't technical questions but ones that tackle very foundations of human societies. The same applies for the cultural and media industry. Although way smaller polluter, in comparison to big industries, its impacts can nevertheless be substantial so it's necessary to reimagine its relations to surroundings and work actively to promote sustainable practices and working procedures.

In the second lecture film producer and sustainability advisor Morana Komljenović sheds light on various project she conceptualized or was a member of. She insists on the communal nature of co-working as a solid basis for developing programs which can actually benefit local communities. Morana advises to use all the existing institutions on European or national level to subside sustainable projects, such as Euromages' programs, or BAFTA's programs and toolkits to address urging problems in cultural productions, such as safety problems, or mental health problems. Stressing specificities of her experiences in various contexts, Morana highlights mutual communication between partners, and within particular projects, as a tool for establishing a productive network of actors in the whole creative process of film making. Many of her experiences include working with minorities, deprived of structural benefits, and trying to build empowerment networks which could be useful for the community after the making of the particular film ends. Some of those attempts proved satisfying, while others couldn't be realized due to particular needs on the film set.

00:00:00 Goran Pavlić

Prior to that, he worked as the country director of the Zagreb office of Heinrich Böll Stiftung - a German green political foundation. Since 2012, he's been the national correspondent for Green European Journal and from 2012 to 2017 he was the managing board member of the National Foundation for Civil Society Development. here in Croatia. From 1998 to 2004, he worked as a journalist and web editor in the daily political newspaper Vjesnik and correspondent to international newspapers. He's a trained sociologist specialized in human rights, regularly publishing on European politics, civil society development, environmental justice, climate transition and migration. Vedran was also a member of the board of directors of the Brussels-based Green European Foundation since 2019, and an associate of Amsterdam-based transnational Institute. Vedran, here you go, you may start with your presentation.

00:00:59 Vedran Horvat

Thank you. Thank you again for the invitation. Just a second so I can hear my presentation. Do you see it?

00:01:17 Sophie Tummescheit

No. I can't see it.

00:01:22 Goran Pavlić

Nope. Nope.

00:01:28 Vedran Horvat

Now, maybe?

00:01:32 Goran Pavlić

Yes. Now I can see.

00:01:33 Sophie Tummescheit

Yes.

00:01:44 Vedran Horvat

Okay, so again, many thanks for the invitation. As Goran explained, I was trying to connect these two universes of media production and political ecology which are not by default very close, but I will try to build some bridges and pilot some of the connections, how political ecology perspective can be useful for those of you who are involved in media production. Currently, we all know that we are living in a very uncertain period not only because of your political context but because we live in the times of climate crisis, which is also a resource crisis. And we are dealing with reconsideration of of our life and thinking of how much some sort of systemic change is possible in order to ensure future for the next generations and also not only environmentally friendly but also socially just. Many of you probably have seen already this photo this image of, so to say, graveyard of cars in Valencia, which was a result of the severe flood. We also have heat waves, one of

the warmest year was this year that actually took 60,000 of lives only in Europe. And we, of course, somehow know that we are all responsible for it, but some are more responsible, particularly taking into account still prevailing fossil fuel base of our energy production and consumption or overconsumption, so to say. So together with some of the authors, we can say that Earth is rapidly moving into less biologically diverse, less forested, much warmer and probably wetter and stormier state and the implication is that we are approaching a global ecological tipping point. from which we may never recover. In this presentation, I will try to focus on four points. One is to present briefly the theoretical and disciplinary framework of political ecology and in this context maybe to dive deeper into resource management aspects in media production. Also to tackle environmental, social and economic aspects of the industry which have to be more closely considered to understand some of the effects of media production. Explore alternative avenues of action which can be applied or could be applied in some of the phases of media production and also open some questions that can be useful for discussion that are particularly related to some controversies.

But before going there, I will start with some sort of very short episode, or to some extent joke. I am myself very frequent visitor of one of the islands in Croatia, which is called Vis. And this island was some seven, eight years ago was a destination where the second version of Mamma Mia, so the Here We Go Again, the famous Hollywood blockbuster was screened. And I think that as some sort of symbol of this intervention as a thing that there was a one case, of course, that all people from the island were thrilled and fascinated that the all Hollywood famous actors celebrities will come to be silent and the whole local community has been very much, you know, fascinated about that there will be months and months of shooting on the small distant island in Mediterranean or Adriatic Sea and, among many other things, and this is just to say about this episode and we will come back then maybe, with our thoughts again, here were, of course, hundreds of people coming there to the island, which was in the wintertime, it is very silent, small island. But in this case, the whole shooting machinery has been dynamizing during that year the life of the island and among others they also had many animals that were supposed to take active role in the movie and one of them was a goat. One of the goats who has been trained to be fit for the role, so to say, for a few months and suddenly the whole cooperation between the local farmer and producers, Hollywood producers stopped because they found out that the goat was pregnant. And the owner of the goat said: No way she will play in the movie, and he was very radical in that and determined in order to stop her role in the movie. They wanted to increase pressure against him, they wanted to sue him. They wanted to, you know, all of this legal stuff, but he was really persistent and said: no, I want my goat to be, you know, to have let's say maternity leave and that she has to rest, and she will not work. And this is actually just very small but very true example of how certain interaction between, you know, certain media production machinery and life of the local community plays in the some sort of collision or conflict of the two worlds and I will be talking because I will be talking about political ecology where idea of degrowth plays a very important role while we know that the very majority of the media production is still very much actively anchored into the current economic system that is really based on growth. And this very short episode is just to highlight some of these tensions that exist which are in this way very benevolently presented.

So, for political ecology, it is important to explain very briefly that the main focus of political ecology as a discipline is to say that the distribution of risks and the benefits related to some environmental change in society are unequally unevenly distributed. And

maybe in the context of production chain or chains that can be applied also to media production, it is very much often related to social justice or to the environmental footprint of certain production processes, so from political ecology we want to take a look into media production. We will of course be observing material output and the intensity, the resource intensity of whole production process. But we will also not ignore that the whole production process is a result and actually contingent outcome of power, of political power and not a neutral terrain. Because somewhere, someone has decided that certain resources or clients will be selected for certain and we will be carrying a certain message. So all that is s really much colored, although not very often not at first glance. It's also not only about focusing on people and on nature and ecosystem, it's also about focusing on well-being of people, of the collective working collective, of the workers in the whole process. So, political ecology actually seeks to expose flaws in dominant approaches to the environment which are often favored by the state, corporations or international authorities. And it is actually working to demonstrate the undesirable impact of policies and market conditions, especially from the point of view of local people, marginal groups and vulnerable populations, all of those which are maybe not privileged in society. Political ecology is also some sort of critical historiography and it is also very much based on myth busting research. So it is really trying to be some sort of hatchet, cutting and pruning away the stories, methods and policies that create pernicious social environmental outcomes. Political ecology also invites us to re-envision technocultural systems that are not predicated on indicting significant and equitably distributed farms to people and ecosystems. This means, as I already mentioned, terminating the fantasy of infinite economic growth enabled by the materialized digital technologies on a material infinite planet. It means addressing the substantive social and environmental harms that surround the lifecycle of digital technologies including addressing the ecologically unequal forms of exchange that see low-income nations function as sources of materials and things for toxic waste while high-income nations profit from selling or allowing access to technologies produced from those materials.

So political ecology invites us for some sort of fundamental re-evaluation of what should be produced and how those technologies should be owned, governed and deployed. It is urging for reorientation of technology, culture, and society toward a post-capitalist future where digital ecology does not depend upon the exploitation and degradation of present and future human and non-human life. So, we also know that production itself can reveal a set of political relationships which are far from ideologically neutral, which relate to intellectual property, ownership, relationship to government, and of course funding. There are many cases of advertising that supposedly can or allegedly do influence the content and messages commonly encountered within media text. When ecology is applied here, it also relates to cultural and creative production, innovation and information. So given also the relevance and importance of the digital sphere now within media production it is very important to examine how the production of digital media and other contemporary ventures involve dynamic networks that form cultural ecologies, which actually function very often analogously to natural ecosystems. I want to stress here in this section still that political ecology is actually emphasizing the entanglement of power and ecosystems, highlighting that technocultural systems are not somehow divorced from natural ecology. And that is why the degrowth and postgrowth positions and discussions that are increasingly present in our societies cannot contend with the ecological crisis, and cannot be resolved without very rapid reduction of CO2 emissions and material use at the global level. And this transition requires a radical redistribution of resources and wealth, and a system of planning to enact this. And of course, we know how much the role of finances and wealth is often relevant to back up or to support certain new media

projects. While digital technologies are positioned as a central to green growth and find themselves quite compatible with the idea of further indefinite growth, degrowth is actually challenging this state of art and dominant narrative, and trying to find ways how we can produce without actually risking our sustainable future. And there, it very much relies on notion of conviviality, of collaboration, also of care, which are all values which are central to the growth and post-growth perspectives. And we tried to find ways how we can reorient digital ecologies away from commodification, data balance and ecological breakdown, in which very often media production stakeholders willingly or unwillingly take part.
We, of course, also know that media industry is extremely carbon and environmentally intensive industry, that carbon footprints of film production for example are extremely voluminous, that electricity production or waste outputs of certain media projects are extremely huge and voluminous, and that many other activities related to certain media production projects, is it the digital or is it, for example, transport related stuff, they bear a huge percentage of the environmental footprint related to the overall resources needed for certain media projects.

But, I'm here actually to think with you together. How we can use some of these political ecology premises and theses in order to find ourselves doing things differently. Of course, as I'm not coming from the media sector in this narrow terms, I cannot know all details but through some sort of very brief scan of the whole pre-production and production and post-production cycle, we have to focus on, we can focus on many various aspects of the production process and cycle, which can manifest itself in, for example, reconsidering travel arrangements and means of transport. And not only the transport of people or animals but also transport of goods and devices and all related infrastructure. We can also plan our routes differently in order to save, to shorten the distances and also to economize our travel routes. The waste is an extremely important aspect that is emerging in media production. We have in some cases tons and tons of various ways that, depending on the location and the state or country where the screening is taking place, is variously managed, but given the responsibility of certain people for the production and constellation, there is a huge, of course, responsibility to manage waste properly.
The whole material throughput, which I have mentioned at the beginning, and all sorts of resources which are present that include also energy, electricity, very often of the extremely high volume and intensity so they require serious reconsideration how certain output or result can be done with less resources spent and consumed: of course, the life cycle of devices and potential for sharing or circularity involved in using devices at different places multiple times, also taking care of the repairing options of the devices. When I say devices, I think of all sorts of, of course technology or techniques that are carrying structure and executing structure actually of the certain media projects so the life cycle and the potential circularity is extremely important and we need to of course take care of how often and how long we use and can use certain devices.
Of course, for that to work, as I mentioned earlier, it requires not only nature and ecosystem but ensuring that the place of work is safe working space, that there are decent work conditions, that there is a quality of work that it's not precarious, that working hours ensure livable or sustainable life for the people. That's all, of course, sometimes put aside when there are certain deadlines but generally, it is really important to focus on the social aspects of media production where the issue of time and issue of life are very increasingly important. Very often it's also about impact on local communities. It is related to the irreversible impact that stays afterwards, after certain media project taking place in certain location but it's also ensuring that there are no detrimental impacts, that

there is ownership of local community, that there is willingness of local community to take part and to participate at fair level with the with the producers. And of course, it leads us to the notion of some sort of compliance with sustainable practices across all departments. So all departments involved and all stakeholders somehow need to coordinate in order to orchestrate this sustainable practices among themselves and find themselves in arrangements for mutual benefit.

We, of course, are aware that there are a lot of resources involved that are also related to material resources of a certain kind, for example costumes or paper or various devices involved that are sometimes used only once. These types of practices, of course, are intolerable or more or less could not be treated as appropriate anymore. Given the scarcity of resources and the some sort of call for resource efficiency within media production, we of course see that there is some sort of trend friendly of increasing the sustainability, but still kind of slow and lagging behind. I want to stress here, of course, that all these aspects have to be kind of present both in pre-production and production phase and at all levels of film as collaborative and cooperative forms wherever possible. And the whole idea of trying to, so to say, degrow or implement some resource efficient or sufficient practices within the production of certain, is it a movie or another type of media production, this should be there from the very beginning and everyone would have to be involved. There are still certain, of course, tensions and controversies, which I find quite interesting for discussion and to open some avenues for later conversation.
We very often hear green and digital or digital is green. But we are all quite aware that the environmental footprint of the digital and resource intensity of the digitalization is extremely high. There is a lot of water or energy use in digital technology. So the prevailing digitalization of media production does not really make it very sustainable or much greener. The transport or travel is really big topic within the media production that often takes place in different locations and and any kind of constraint on the travel is always perceived as some sort of blocking our individual freedoms or our comfort.The transport within the media production is still very much responsible for around a third of the environmental footprint within the media production globally. So any type of consideration where we are choosing certain locations and how actually we are behaving there and what we are leaving to this community is not, of course, only about the emissions or waste or pollution, it's also about some permanent impact which is present or which is left after certain projects. Culture of sharing, particular sharing of resources or borrowing of resources is of course present at the level of low budget media production but certainly the culture of sharing is something that needs to be explored in order not to have too much of one shot or single use moments with resources or devices. And of course that at some sort of systemic level we would need much more thorough and systemic monitoring or observing of how much of a footprint is a result of the media production.
If we have certain success with certain media project that, you know, is opening commands or is being inspiring or is like great artistic work we also have to see what we have done on another side and if we have been following some ways that go along with a sort of artistic excellence or any type of originality, we always have to come back to see if resources have been used sufficiently and efficiently, and we have to bear in mind actually that we also bear responsibility to somehow cultivate or nudge or educate our audiences to behave more sustainably.

I know I'm quite aware that this is another type of media production, this is actually, an image from the Massive Attack's concert. For example Massive Attack is really one of the

examples where in music industry they are trying to, so to say, walk the talk, and with all sorts of interventions and measures. They are, for example, trying to make their concerts have zero footprint or very low environmental footprint, with also taking into account the behavioral patterns of their audience, suggesting that, for example, audiences could use public transport or bike to come to the concert and be in some way rewarded for this type of behavior. So, in media production, I don't see this type of pioneering efforts that are visible at the very global level. There are of course certain protagonists with these messages but also, and here in this case, I didn't want to stress something that is self-evident. But also the content of the media production itself needs to tackle the aspects of the climate crisis and also the political motivations and reasons, and relations and different political conjunctures that are behind certain decisions to start or with certain media projects.
So ending here with Massive Attack as an example, I would like to end here and thank you for your attention.

00:31:50 Goran Pavlić

Thank you Vedran for your exhaustive overview of some of the political ecology's, let's say urgent or main topics. So, I open the floor, anyone wants to pose a question, or comment on some of the topics discussed here and presented here?

Well, while we're waiting, I would like to pose a question rather hypothetical, but quite often heard in the let's say, artistic circles at least in Croatia as being one peripheral. not too developed country with not too developed film industry. Quite often when I discuss with my colleagues about these new, let's say ecological, requirements that should be met in the future they usually have the same response and that is: we are already poor and we don't have enough money and if we get forced to meet these ecological criteria, we'll have even less money for producing a film. What would be your suggestion for such a type of doomerist attitude developed by some, let's say, circles? Is it possible or is it advisable to rethink their strategies and their artistic methodologies to meet the obviously very needed changes in the functioning of the production, be it in other aspects of society or precisely in the artistic community in the making and production of films?

00:33:38 Vedran Horvat

Yeah, I understand. I have also the same experience when talking to filmmakers and producers, but I also have some experience lately with talking to let's say theatre actors and theater producers and also cultural artists who are, you know, going to different residences, or the musical artists or any other type so it's not applied only to let's say, to narratively speaking media production but also more broadly in the culture. And I understand their hesitance and reluctance to actually accept this type of constraint, which they, as you say, they find themselves anyhow poor. And now they think that you know ecology will be some sort of argument to make them even poorer or even more miserable. And I would say that there are at least, I mean, there is no final answer on that, but it very often depends on their own attitudes. One attitude is, of course, it's kind of a very comfortable attitude that actually implies that, you know, that you have to take a flight and not a train. Of course, in some cases, like in this part of Europe, there are not too many trains or train lines. So sometimes you really need to take a plane but Europe-wise and I maybe talk about this at European level because you are dealing with the European project, here I think that there should be some sort of systemic introduction that is doable on certain systemic level where those who are providing funds need to actually introduce

various changes in order, for example, to enable slow travel or taking other means of travel or allowing more funds. For example, if you have slow travel, you can also have, for example, longer stay somewhere. And there you can leave something to the local community or integrate your work much better in the local community. I want to say that this attitude, this mixture of some sort of, I would say, more passive attitude where you are some sort of victim of the system and you cannot change the system of the funding because fundraising is extremely challenging. And then if you even find funds, you need to save a lot of money on this type of constraints where you see ecology as just another burden and not actually as something that you actually join and where you actually can have proactive role, together maybe with other producers and maybe engage in some type of lobbying or how to say influencing funders to change the patterns. It's still, I would not say naive, but it's quite difficult to actually win this without having a very strong collective voice of different, you know, producers in the industry. But the precondition is that they don't see that there's a burden of constraint, which I think is still very not the case. And I think that there is a need of some very deep work, deep work with this industry to acknowledge that their own industry will also collapse in case they will be

depending on this, you know, pro-growth narrative where they actually think: If there is growth, then there will be media production, you know, this type of dependence on there will be money. There will be some surplus of money and this surplus of money will be there in order to be divided among certain clients in the media sector and probably most strongest. So there is a lot of this some sort of survivalism and Darwinism, social Darwinism within the sector which prevents more solidarity and collaboration that is actually the basis, one of the basis, not exclusively, but one of the basis for some type, of course maybe not all, but some type of collective bargaining against or toward the institutions or the funders, be it the state or private funders or foundations or European Commission or whoever it is. It is important to argue and to advocate different structure of funding that would allow these things to be really, you know, that you can walk the talk; that you can actually, if they give you maybe less funds for some resources or some equipment or whatever you find necessary, get certainly more flexibility that follows the sustainability principles. I don't have the final answer there because I find it very difficult to, you know, target certain profession or certain group as you know that they have to be victims of the ecological transition, because we are all in this together. We are all in this together but we of course have very different positions and not everyone is in the same boat. But just for that reason, we of course need to kind of find ways how to collectivize these efforts and and be aware, because I would expect from the cultural workers and artists and media professionals that they are aware. They are also finding themselves in very, you know, facing very unsustainable future and even on the content level, some of the content produced there should also tell this story and bring this message forward. And if you're bringing this message forward, you also need to walk the talk with your practices and you cannot, you know, talk about you know some post-op co-op post-apocalyptic scenario or talk about environmental sustainability, without actually trying to introduce as many as possible such interventions in your own work.

00:41:20 Goran Pavlić

Yeah, that sums up the general guidelines that, well, are strongly advised but still, at least in Croatia, and I guess in other, let's say peripheral states, are still in this kind of very initially stages of development due to various reasons but one of those is also this kind of methodological inertia or conformity, not willing to engage with the stronger

challenges that this kind of strong transitions toward the more ecologically sustainable practices require. Okay, thank you Vedran, thank you for your presentation and for your comments. I hope they were inspiring for all of us, but definitely for students who are just entering the field and who will definitely have to deal with those issues in their future career in the artistic field. Okay, this was it.

I would like now to go to our second presenter, Morana. I'll shortly introduce her as I did with Vedran. Morana is producer and author with more than 20 years of experience in the audiovisual industry. She mostly produces other people's creative ideas, although her debut film *Naked Soul* was shown at the Sundance Film Festival in 2001. And she occasionally receives awards for her work. The last international project she produced was the *Golden Thread* by Nishta Yain, or Jain which was declared the best international film in India in 2024 at the prestigious Mumbai Film Festival. For about 10 years, she led a recognizable documentary production Fade In and gained international experience as co-producer, mentor, acquisition manager, and decision maker at Taskowski Film from London. She founded Little Red Dot in 2018 and mostly works on the development of international co-productions, transmedia projects, education and empowerment programs. She often collaborates with Creative Europe desk Media Croatia office, the Croatian Audio-visual Center and Eurimages. She is a member of the expert network and an active member of the board of directors of the Filmmakers Association of Croatia and president of the production branch. She teaches the course financing in the media at Academy of Dramatic Art in Zagreb. So Morana, the floor is yours.

00:43:51 Morana Komljenović

Thank you. Okay, I will just share my screen for a second here. Okay, I hope the technical aspect is okay

00:44:03 Goran Pavlić

Yeah, we can see it.

00:44:08 Morana Komljenović

You can follow. Okay, great. Hello, everybody. It's nice to see some of you again. We met at the kickoff meeting in Lodz a couple of years ago, and I'm very glad to see that your project is really going on as planned and it makes me really happy, in terms of what Vedran was saying, my colleague from college, because we both studied sociology at the time. I just wanted to give a focal point, to share this focal poin of my presentation. I will be speaking as a producer, but I will also be sharing with you some of the outlines of the strategy that we've been working on as the EURIMAGES Working Group, Sustainability Working Group in the last couple of years. And I wanted to emphasize that sustainability is not only cost, as Goran mentioned that some of our colleagues are concerned, but it's also a way to save money and to be responsible with our budgets. Some of the case studies in Denmark showed that some big media projects and projects that are produced by big production companies actually save almost 62% of their own budgets when they turned into greener and more sustainable production because the green and sustainable production means that you are holistically budgeting your projects. Okay, maybe initially you will have more cost in, for example electronic vehicle, introducing electronic vehicles or shopping locally that is often more expensive initially, but if you combine different budget lines and combine different actions on set, you will end up after a while saving your budgets and saving your money in terms that you have not experienced right now when we are just running around and just trying to put up fires in our productions when

we do it like really strongly budget based in production without planning and risk assessment as one does when we when we talk about sustainability in pre-production and in preparation.

Okay, so I will be talking about social sustainability which is our crucial aspect of production. When we talk about carbon footprint and when we talk about ecological aspects of our actions, we talk about environment and we talk about the nature and we talk about climate and we talk about maybe the social impact of climate change but we are not really talking about how actions of ours impact our creative community, the local community where our projects are based and how our actions and decisions are affecting our everyday working hours on set. So, my focus today will be this soft aspect of film production and media production. In order to prepare for this, you know, this meeting of ours today, I decided to talk about broader, not only film production but cultural production in general in terms of creative industries. And I will talk about equity in terms of fairness and justice, integration, diversity, empowerment. And please bear in mind that I will be talking about my own experience, not only what we learned. Okay, so, I asked around. I asked people in my own community. I asked my nieces, my neighbours and my aunts, what do they think when they hear social sustainability? So my niece Lana, she's seven years old, she said helping people. She said, it's like when we share our toys so everyone has a turn and no one feels left out. It's a genuine, genuine point of view. Marchy, my other niece, she lived in Amsterdam until recently, she's 12 years old, she says kindness. She says that social sustainability is being nice to everyone, making sure no one is lonely or sad. Right? Tone, which is a half-brother of my daughter, he says sharing, like when we all take turns using the crayon so everyone gets to draw. Then my mother, she is 81, she's from her own like elderly perspective saying that social sustainability is caring for others. Maybe it's about being mindful of how we treat each other and making sure no one gets hurt or left behind. Everybody has hers or his own concerns, right? And my aunt Ana she's 89. She says community wellbeing. It probably means making sure people live together happily, like working together in a team to solve problems, right. So my colleagues are being more skeptical, as Goran already mentioned. Marin, 39, says that social sustainability is corporate jargon; he says it's just another buzzword companies use to sound good without actually doing anything. Right? And then Tibor, a former student, says that social sustainability is European figment or tale it's a fairy tale, a bureaucratic fabrication of idle Europe, without any real effect, this bureaucratic apparatus must justify itself. Everybody is afraid of being imposed with different actions that they don't feel comfortable with. Lucia says it's empty premises. She says it probably means a bunch of talk about doing good things. But at the end of the day, it's just a way to sell more stuff while pretending to care about people with no real impact and no real action. But bear in mind that these thoughts are being shared when we talked about social strategies, I mean, sustainability strategies. Because we talked about how we will have to deal with the new regulations that are coming from our European funders, that we will have to be able to provide sustainability strategies in which we will have to be accountable as producers of different aspects of our work, not only about our environmental impact, but also with our social impact. But some of the colleagues also said that social sustainability means stability, peace, and also togetherness.

So I guess this is a good point to talk about where I come from and what my background is in terms of social sustainability. This is an image of my high school image in my hometown in Rijeka during war times. I think it's 91. And in the aftermath of this very impactful times in Croatia, where we had the transition of one political system to another, we were left with the ruins of the social fabrics of two different societies. And we were

concentrated on how to rebuild the social tissues between people who were torn and we as kids, I think in this photo I am 16, we kind of picked up really quickly on our own skin, what it means to integrate people coming from war zones in our classrooms, what it means to comprehend the different cultural aspects of different communities that were coming to our cities, different languages and different experiences. So upon that experience we started work on different NGOs, providing creative workshops for kids, refugees, kids that were victims of war with different aspects of creative work. So one of the initiatives, you can see an image here, was called Peace School in Mrkopalj, which is a mountainous area in Croatia, Gorski kotar which avoided war by actively living peace then. And we were actively taking part also with the kids of different nationalities, working in a creative process and dealing with the social tissue of our societies. Later on with my film work, especially as I was dealing mostly with documentaries, I integrated those issues and integrated those topics in communicating ideas through film mostly, but also through television. But after a while, I felt that we were like visiting local ecosystems and picking up on different stories, but then leaving and not leaving anything behind. The expectations of the people that we were filming were really high, and what we were able to give them at the specific moment was only visibility and maybe some kind of limited experience of being part of an artistic process, but nothing more. We were not advocating outside the five minute space on TV or the 85 or 26 minute space of our films.

After a while, I began producing in a more sustainable way. I started to think about what is this impact that we as producers are leaving in our ecosystems and what is the responsibility that we all have. Not only because our industry is taking a big impact on the overall state of the planet, because the creative industries have a really small percentage when you think about the construction or the energy sector or transportation, or the building sector, we have a really small percentage, but we have a strong voice, we tend to strongly voice our opinions and to change the way that people think. Our media products speak volumes more than maybe a newsletter of a construction company, right? So we have this opportunity to voice ,and different concerns to show good examples in our work and to give him back more than just human stories to give back stories with meaning, not only through content, but also through the impact of our own actions. A couple of years ago, I was part of a workshop of a Finnish group of producers and they said they were talking about climate and talking about the impact that we as individuals make on our planet is an intimate question because it gives an insight on the way that we live our lives, on the costs that we have, on our economic status, on the status of human rights in our societies and different aspects of our intimate circle that maybe some of us are not willing to share. But as producers that have responsibility for our team, but also for our protagonists, but also for our topics that we deal with in a creative way. We have to pose that question and we have to be truthful with the answer. When this doesn't work, when we are not being able to be true to ourselves, there is the European Union, right? And there are the contracts. So what really made an impact on our own industry is the Paris Agreement in 2015 and the European Green Deal, right? You already, I hope, talked with the students about these two core documents of our industries. The documents are basically agreements between the states of the European Union, coming together and saying, okay, we will fight climate change and this will spread across the different activities and different industries that we tackle. Our creative industry is somehow falling behind at the moment of the European Green Deal. The president, right, Ursula von der Leyen, she says that if we reach our carbon neutrality and if we reach what we said in these agreements it would be mostly as it would be the equivalent as a human being stepping on the moon as an astronaut step, right. The astronauts in Croatia, I don't know, maybe in some other countries, are falling asleep, have fallen asleep, and it's

really slowly, slowly getting up. They're not getting up on their own free will. We're getting up because we have to, because we are conditioned by the European agreements and we are being conditioned by European funds. At Euroimages, we are at the working group already discussing how to implement this different aspects of the agreement in the funding system. Media is already doing it. The Creative Europe system is already evaluating your own strategies and in a very near future you will not gain the financial incentives or the financial or the fundings without really implementing the strategies that you will write in your applications.

So I will show, Vedran was saying and he was explaining the different aspects of sustainability, but what is it that the strategy asks us and what is it that we write in these strategies and what is the certification process of our work. They're asking us about catering, about how we supply, where do we get our supplies for catering and craft? Is it local? Do we ship the ingredients? Do we use the local local produce and what is the transportation time for this produce to come to the restaurant and to our set? Do we use reusable materials when we eat and so on and so do we eat at the restaurant or is the food coming to us? What is the aspect of the energy consumption in terms of equipment, do we use generators fueled by diesel? Do we use solar or hydrogen generators and do we use electric vehicles and different aspects like that? And also materials that we use for building on set. How do we distribute our budget? And how do we communicate what we do within the team and outside the team? But one thing that is fairly new and that is the most, I think, that has the most human face is the question about social sustainability. And this is the aspect that I will be talking about today. I don't know if you talked about the certification process, but the certification process of our work, audiovisual work but also other creative works is a process where we evaluate the different actions that we undertake in our production, in these different aspects of action. There is a really narrow step, a really close step between social sustainability and environmental radicalism. And we have to be aware there are different groups right now that are advocating the creative sector to be aware of this fragile balance between radicalism and fair action. And we as producers must be aware that the steps that we take in terms of sustainability must be in harmonization with the needs of the people that we work with and with the communities that we are working within. And we as producers must be responsible for the actions that we undertake. I mean, sometimes you have to really be aware of your own impact sphere and to act within what you identified as your own space that you can influence. And then we can talk about social sustainability. When we identify what those aspects are and what we are comfortable with, so when we talk about production and social sustainability, that means labor practices, aimed to improving sustainability of production from a social point of view and that means that we have to take into account different members of our teams, different aspects of their identities, their livelihoods, their own aspects of being themselves in terms of also different cultural aspects and try to take into account that these people will need to be in the sphere of safe and healthy environment that we as producers, we must prevent any risks in terms of discrimination or risky behavior onset, but also be aware that we need to nourish their well-being at every step of the way.

This means that we have to implement different actions. And we right now, when we have different calculators and different certification agencies available in Europe right now and you can find some packages of that they have already prepared of what you can do right now in your own productions - a set of tools, different online tools, different concrete

resources of learning and different partners, local partners that you can contact and do your project together. But the most important thing that we as producers can do without any money and resources is taking into focus each one individual in your team and declare the production as a human-oriented production with two simple tools. And one (A) is the charter of values of a production. You know, we can write down our specific charter of values at the beginning of our preparation for our production. And B, advocating the different positive aspects of these decisions communicated very clearly to our partners, but also to our team. It can also be a code of ethics, whatever you decide, what is best and what is in the best nature of your production, but it's a small step. Maybe some of the colleagues of mine may say it's a cosmetic step, but I think it's something that, if we communicated loud enough and clearly enough, empowers people not only to feel more secure, but maybe to find their own voice to advocate their own problems, to find themselves in a position to be viewed as an individual and to be maybe by declaration, att this point taken into account and us as producers saying to the team member or to the local community, we see you and we want you to feel safe and we will take these steps in order to guard your well-being.

Okay. There are some documents right now in place in the European Union that you can adopt. The Italian women in film, television and media guild, have established these rules of ethical behaviour in audiovisual field that you can also apply in your production. You can also write to them and maybe write a letter of commitment and say, okay, we are applying this document and then communicate it also on the outside, not only to your team members, but also as a advocation of your artistic project, as one of the aspects that you as producers feel that it's important to communicate. The BAFTA, the Albert BAFTA system also has developed with some partners, some toolkits that are digitally available to you. On this website (wholepicturetoolkit.org.uk) you can find different testimonials of producers or different head of departments sharing their own experiences with mental health issues and how they tackled the crisis, the post-COVID crisis within their teams. And what are the small steps that you can undertake to prevent some of the difficulties on set and how to nourish the well-being of your team and collaborators with this digital tools, also in different stages of production, in pre-production and post-production and so on, they can help you with that. Some of these tools are free and some of these, like the call it tool (callitapp.org), are not free, but it's a system put in place for giving feedback from your team on various important aspects of their own work. But I recommend to use also some of the not so fancy in terms of many tools that we already have available in terms of Google Forms, for example, that you can put in place for your production and say, okay, this is a way to communicate anonymously, whatever it's bothering you. And we can talk about it and we can go through it every morning in our production meetings and whatever. What is at the core of social sustainability is feedback right from your team and communication, you know, what are your values and what are you as producers nourishing and what are you not tolerating at all. Okay, these are some of the tools that you have available. I've written it down so you will have it in this presentation, the green film tool has the criteria of social sustainability really well written down and it's really easy to navigate. So if you need more information you can go there. So what we communicate within is also relevant, but it's really relevant what we communicate in our surroundings - with our partners and also with the communities that we work in, qnd what is our impact on that? One of the projects that I've been working on is structuring the social sustainability strategy and also the social sustainability is a creation project. called God Will Not Help. And this project was set in a mountainous and very poor area of Croatia where there was a lot of really deteriorated houses, sheep of sheep hoarders made by dry stone walls and we, the production decided first to have people who are very

well skilled in rebuilding the drywall stoned houses, to come to the set and to educate not only the production designers, but also you know whoever from the team who was interested
to get a short workshop of how to use traditional skills in these terms of landscape architecture and traditional building. And this was something that we made as a social sustainability impact of our project because we empower our own collaborators and interested parties within the film to broaden their own skills and to connect them with their own heritage, to connect them with the local community. There was another thing that we wanted. We wanted to build biodegradable and bio toilets in order not to disrupt the ecosystem we were filming in. Not to, you know, bring on the set the toi toi plastic little houses. But this was something that was not doable for us, because the building of this biodegradable spot - toilets was very inconvenient for the main actress who had this big gown around herself and she needed to walk to the biodegradable toilet and back and it was really hard to do. So we said, okay, our sphere of influence was limited
and we are not able to provide something that is good for the environment, but it's really bad for our actress and her own well-being. And it's really bad for our scheduling and so on. So we decided not to influence the environment in that way, right? So it's all about the question of balance of our sphere of influence and US producers are in the position to decide and to take this balance into account.

Another project that is really funny and dear to me, it's a project happening in Manchester where they also wanted to this local cinema in Manchester, they wanted to address the bee problem in Manchester where the bees were really endangered and the whole city was kind of, you know, putting on different bee mosaics or different bee interventions in the space in order to raise awareness, blah, blah. And then The Manchester Cinema decided to go a step further and to educate the people working at the tickets office, for example, who are, who were like low educated and the cinema paid for their education to become beekeepers and to be able to provide to produce their own honey. So they invested not only in the campaign, but they invested into human skills to empower their own workers. And on one aspect and on the other to, you know, take an active part into solving the bee problem in their city. So this picture, you can see the two of the cinema workers very proudly cultivating honey on the rooftop of the location of the cinema, so this is something that is creative, that also advocates and it was a big campaign, but also had a direct impact on the lives of of the team of the cinema, of the workers of the cinema. I'm also working closely and I'm one of the authors of the Museum of Personal Stories. This is a museum based in the eastern part of Croatia called Osijek. It's a post-war zone and it's a city that probably has 21 different ethnicities, and people of different nationalities living there. And the museum captures their own personal stories of different groups, not only through audiovisual works, but also through different objects and photographs and photo interventions. And we decided to make the project more socially sustainable by actively involving the protagonists of the local Roma community
that we filmed as production assistants, drivers, runners and they all got their different knowledge and skills they didn't have before. Some of them, mostly girls, I should say, they wanted to work as journalists so they were actively involved in research process and working with professional directors and professional crew members that were involved in the project and in this. In that sense we came to the local community and we took out stories, we advocated the stories through our artistic work, but we left behind a group of empowered people. We provided them with skills that they were not able to gain anywhere else because these young people were unemployed, undereducated, and most of the time they felt not really at ease coming to the employment office to, you know, to

ask for more education, they simply felt that their place is stuck in this social scale and this artistic project provided them with some some skills and we tried to bring them back on different also projects that we did with the Jewish community in Osijek and with the textile workers there and so on and so on.

This is also one of the examples of where the production was aware of the community the production was based in. So by the end of this expose of mine, I would invite you to observe and to listen to your people in the teams, but also to observe and listen to the people surrounding your project, to plan ahead and also to communicate the concerns, but to communicate the values not only, you know, to solve problems because as producers we all often communicate when we have a problem, but we need to communicate also the good aspects and the good ideas and empowering moments within our production. And following up on the listening part, you just have to be able to adapt and to change. And also to partner up, to try to find partners in the surroundings of the ecosystem of your project, to find partners to empower the project and be able to, you know, build upon different experiences in a more strongful and meaningful way and not to be alone in this process, but rather work upon your networks and identifying different partners.

Okay, this is an image of one ton of CO2. We talk about the CO2 emission and the carbon footprint and this is fine and it's okay and this is in the mainstream communication, but I think that we also have to start talking about the soft fabric of the CO2 emission and to talk about the social aspect of the aftermath of our activities. And this is the human relation. Okay, thank you for your attention. This is my email if you should have any more questions. Thank you.

01:20:47 Goran Pavlić

Thank you Morana for this great overview of your experiences and practices that are really reality-based. I think it's a good combination with Vedran's more theoretical observations and now contrasted with your concrete and rather inspiring examples from your production experience. Unfortunately, we are not left any more time for the time questions, people have your email in case they need or want to find out anything more. I would like to thank all the participants for attending today's lectures. I hope they learned quite a lot about, well, not so usual aspects that we're dealing with here in our series. And we invite everyone for the next meeting, which will take place in two weeks on November the 19th. We'll shortly send the complete invitation with the short descriptions of the presenters and hope to meet you there. Do you have any kind of comments or final remarks or something? Well, if not, I would like to thank you once more. Our time is running up. Thank you. Have a good evening and see you on another occasion with our green screen lectures.

Event 2 / Season 4

Sustainable Practices in Polish and Global Filmmaking

Date/ Time: Tuesday 19. 11. 2024 | 15:30 – 17:00

The second Green Screen International Lecture, part of the Erasmus project Green Education in Media (GEM), aims to present sustainable practices in audiovisual

production, stressing the Polish experience, but also giving examples from a wider European context.

The GEM project focuses on promoting environmental awareness, supporting green and digital competencies, and developing new, sustainable curricula and media production methods. The project involves universities from seven countries: Germany, Greece, Finland, Croatia, Malta, and Poland.

The meeting is curated by Małgorzata Kotlińska from Lodz Film School, Poland and Goran Pavlić, Academy of Dramatic Art, University of Zagreb. And the guests are Filip Kuczmarski, a member of the Lodz Film Commission in Poland who will elaborate on the legal aspects of working and hiring in the Polish film industry, focusing on daily and weekly working time limits, overtime, and rest periods. The second guest is Jack Shelbourn, senior lecturer at the University of Lincoln who will speak about climate impacts of cinematography and how to develop a sustainable future for the craft. And the last one is Monika Głowacka, Deputy Director of Polish Creative Industries Development Center, and also initiator of "Agreement for green audiovisual production - Film for climate" group. She will be talking about her experiences in the Polish film market.

Participants will gain a deeper understanding of the legal and other institutional aspects in addressing sustainability issues in film production. Moreover, a perspective on climate impacts of cinematography is going to be elaborated.

Speakers:

- Filip Kuczmarski, a member of the Lodz Film Commission in Poland
- Jack Shelbourn, , director, senior lecturer at the University of Lincoln
- Monika Głowacka, Deputy Director of Polish Creative Industries Development Center

Curator and Moderator:

- Małgorzata Kotlińska, Lodz Film School, Poland
- Goran Pavlić, Academy of Dramatic Art, University of Zagreb

Summary of the meeting

First speaker, Filip Kuczmarski, drawing on personal experience and academic research, presents findings from jis bachelor's thesis on working conditions in the Polish film industry, especially in the production department. After the fall of the Soviet Union (1989) and before the establishment of the Polish Film Institute (2005), the Polish film industry had limited funding, unstable jobs, and few productions. Since 2005, production has increased, but working conditions remain poor due to a delayed focus on labor rights and sustainability. Key Issues seems to be excessive overtime in film production: 70% of workers report overtime occurs often or always, with 2–3 extra hours per day being typical. Most affected sectors are production, costume, and art departments.

Legal regulations do not meet everyday situations so the official work limits lasting 11-hour daily and 35-hour weekly are often not respected. 89% workers report working seven days in a row, and 68% work during legal holidays, which leads to chronic tiredness, accidents, reduced focus, creativity decline, and higher risk of health issues and addiction. Work-life balance is extremely difficult to maintain. The main cause for such a situation are limited fundings which leads to compressed shooting schedules, forcing excessive work into fewer days to cut costs. The Polish Film Workers Union, founded in 2021, is still new and growing. Their goals include limiting overtime to 2 hours/day and 5 hours/week, ensuring mandatory rest periods, making Sundays and holidays on-working days. The aim is not luxury but basic human rights, especially the right to rest. The union looks to France, Germany, and the UK as models, where film unions have long-standing agreements with producers that regulate fair conditions. These aren't always national laws but binding agreements that protect workers' rights while balancing production needs. Positive changes are expected in the coming years through ongoing dialogue and advocacy.

Second guest, Jack Shelbourn who is a senior lecturer at the University of Lincoln, discusses the climate impact of cinematography and how to move toward a more sustainable future in film production. A 2020 BFI study revealed that a major film can emit over 2,800 tons of CO_2, largely from transport and diesel generators—much of it tied directly to cinematography. He explains in detail how cinematography contributes heavily through equipment transport, crew travel, and energy consumption, particularly lighting powered by diesel generators.
Jack's work embraces a style called New Naturalism, pioneered by Emmanuel Lubezki and Terence Malick. It involves using natural and available light, handheld cameras, and minimal equipment to work with the environment rather than against it. This approach is not only more sustainable, but also artistically rich—seen in acclaimed films like *The Revenant* and *Nomadland*, as well as the speaker's own films (*How You Look at Me* and *Mindset*). He argues that creative constraints—like limited power or minimal gear—not only reduce emissions but also enhance artistic identity. His PhD research includes practical experiments comparing traditional three-point lighting with single-light and reflector setups. Early results show visually comparable results with significantly lower energy use.
The final goal is to prove that sustainable cinematography is viable both creatively and commercially. The research uses tools like the BAFTA Albert carbon calculator to quantify carbon savings, aiming to offer practical guidance for cinematographers wanting to reduce their environmental impact without sacrificing quality.

Monika Głowacka presented the work of Film for Climate, a collective initiative aimed at making the Polish audiovisual industry more environmentally sustainable. Drawing from her experience as a film commissioner and now at the Polish Creative Industries Development Center, she highlighted ongoing and planned efforts in sustainability across the industry. Film for Climate was founded in late 2020, it is not an official organization, but a collective of over 50 members, including production companies, freelancers, location managers, film studios, universities, and industry organizations such as the Polish Producers Alliance. It was inspired by European efforts such as the CineReg Green Group Manifesto. It was funded by the European Commission (Wrocław office), Polish Film Institute, and National Recovery Plan. It provided training for 17 green consultants and certified 32 ambassadors for sustainable film production. Training includes topics like eco-conscious scriptwriting, production communication strategies, and problem-solving with Green Managers. So far it has created Green Production Guidelines and tutorial materials to support sustainable practices on set, and focuses on building industry awareness about film production's environmental impact. It continues to negotiate with the Ministry of Culture and Polish Film Institute to introduce green standards into broader funding programs.
It aims to encourage creation of formal green production standards in Poland, modeled on international frameworks like Germany's Green Production Protocol and the UK's Albert certification, to engage with major streaming platforms and broadcasters (e.g., Netflix, Canal+) to adopt sustainability commitments and to continue collaborative meetings to assess industry needs and adapt activities

Transcript of the 2nd Event

00:00:02 Małgorzata Kotlińska

Thank you. Sustainable Practices in Polish and Global Filmmaking. And this is the part of our Green Screen International lecture series which we have. This event is organized by GEM Green Education in Media project which help us teachers, but also students and filmmakers learn about green practices and take action in our work. So thank you very much for joining us. Today we will talk about how the film industry can become more sustainable. This is our main leading topic of I think each of the meetings. This means making films in way that maybe are better for the environment, fairer, more fair for workers and mindful of legal rules. And we will share some information among us and a quick note before we start because as you saw, this session will be recorded to create our teaching materials. We also have the transcription yes to and after presentation we will have also the time for your questions. So please feel free to join the discussion.
But at the beginning I would like to introduce our speakers and moderators for today. And the first speaker will be Filip Kuczmarski. Filip is a member of lot's Film Commission in Poland. He graduated from the film school in which he has worked on many film projects and noticed problems with working conditions in the Polish film industry. This led him to research these issues for his bachelor or thesis. And Philippe now works on the Academy of Sustainable Audio Visual Production, a project which is founded by the European Union National Recovery Plan. Today he will talk about legal rules for filmmaking in Poland, such as working hours, overtime and rest periods and how this affects the industry. Then we will go to the presentation of Jack Shelburn from the United Kingdom. Jack is a cinematographer and senior lecturer at the University of Lincoln. He

worked on Mindset in 2022 which won Best UK Feature Film at the Manchester International Film Festival. Jack is also doing a PhD in sustainable cinematography. His research focus on the environment, effects of cinematography and how to make it greener. He's wondering. We will see. And today he will talk about how filmmaking impacts the environment and how the industry can become more sustainable. And last but not least, Monika Głowacka from Poland. Monika is Deputy Director of the Polish Creative Industries Development center in Poland. She has worked in the film industry since 202007 and she helped create green guidelines for the audiovisual industry in Poland. She also leads projects and trainings about green production and watches what is very important for them. For us. She was also a jury member for the Climate Film Award at the Polish Film Festival. And today Monika will share two tools and tips for making film and TV production more environmentally friendly. And those are our speakers and with Goran Pavlic, we will moderate the discussion. Goran is from Academy of Dramatic Arts in Zagreb. He's an expert in film education and will help guide the today's session as a moderator. And I'm from National Film School in Lodz, Lodz Polish Film School. And I. I'm interested in film project management and passionate with making the creative industry also more sustainable. So with such experienced speakers, we are very excited with Goran too for the presentation and discussion ahead. And let's begin with our first speaker, Filip Kuczmarski, who will talk about legal rules for sustainable filmmaking in Poland. Filip, the stage is yours.

00:06:21 Filip Kuczmarski

All right, thank you so much for the invitation and for this introduction. I'm really glad to be here and to talk about my research for a while. I will launch my presentation and let me know if it already works. All right. So as it was mentioned, I was working in the production department in quite a few film production here in Poland in Lodz. And I realized that working in Poland has some problems and they are struggling with some aspects about these working conditions. And it led me to go through these topics to do some research and to write my bachelor's degrees, my thesis about those aspects. And I would like to share with you some of my thoughts and some of the numbers and research that I found during that process. So the first thing I want to say a little bit about is the historical background here in Poland to introduce you why we are here. And after the collapse of the Soviet Union in 1989 to the establishment of Polyfilm Institute in 2005, there was a time in our history here in Poland that there was really limited funds for the film industry in Poland. So there was too little money for films. And we couldn't provide filmmakers with a stable job and stable income. So it was really difficult 15, 16 years for the whole industry. And they have really struggled with finding enough jobs to provide for the families. So after the establishment of the Polish film Institute in 2005, the situation got a lot better. And now we live in prosperity. So year by year more and more films are shot here in Poland. So I think that this quick background shows why we are talking about the conditions, the working conditions now. It is not topic that was discussed for last decades like it happened in the other countries because we were struggling to have like enough films, enough funds for the industry, so where people had to decide if they want to work on the sustainable environment and sustainable conditions or they will not have like job in the film industry at all that they decide to work at anything because it's like this basic hierarchy of needs. If there is no job, there is no discussion about working conditions. So this is the topic that appeared really just a few years ago in the Polish industry. So these conditions I split into like these three aspects.

The overtime during shooting, the breaks and the working days in the Polish film industry.
And those numbers are based on my collaboration with Polish Film Workers Union that was established in 2021. And they did their research and asked the Polish film workers about the overtime, about the breaks and about the working days in general, about the condition they work in. And the results were quite shocking. And I experienced it on my own. And I think when I, when I speak with people who work in industry it really looks like that in real life here in Poland that overtime is something really common. Of the people who are asked about this overtime, more than 70% of them answered that overtime happens always or most of the time. And this overtime is not mostly only one hour. It's on average two to three overtime hours. And it's the same when we look at the commercial, the same when we look at the feature film production and the series. There are a little bit of moves there in the numbers, but they are not, not essential. And the departments that are the most exposed to those overtime are the production, costume and the set designers, the art department, because they most likely need to be even a few hours before the official start of the shooting and sometimes a few hours after the official end of the shooting day. So they are the most, they most likely work the longest, the longest time.
The breaks are separate. They are split into the daily and weekly breaks which should look like the daily breaks should be an 11, 11 hours after the working days and the weekly should be like 35 hours which is constantly, constantly just break, that they're just breaking these breaks and not, not providing them to the Polish film workers. And more. More than 89 of them who work in the Polish film industry, answered that they work seven days in a row. So in the typical week they don't have established one day of the break in the, in the shooting industry, in the production, for the production time. And even they are, the 68% of the people who were asked in this study, the answer is that they work in the holiday who are in Polish law set aside the free of work so the working days, which includes the holidays, the Sundays, basically the weekends are also set to be the typical working day. Even the shooting days when there's like scenes are shot. So I also checked the impact that it made have on our health, the health of the people who work in this industry. Like this tiredness of course can lead to the reduction of ability to focus and higher possibility of accident. And also this tiredness leads to decreasing ability to creative thinking. So it's not only the problem of. Of individuals, it's also a problem of the artistic aspects of the movie. So we have to think about that also from this artistic, artistic performance perspective. Of course, this work life balance in the Polish film industry is quite difficult and hard to maintain. And also this leads to the more frequent medical visit and the predisposition for addiction.
And this is just the titles that I want to talk about in this really short form. But I have of course the sources of these studies, the sources of this information. So at the end I can of course help anybody who is more interested in searching deeply in that, send, send those sources of those informations. But the numbers are quite shocking and terrifying. And as I was doing this research, I found that there's like two groups of reasons. One is the type of contracts that we have in our industry in Poland, the type of the legal source. And the second is the preparation time and in general money. So I will start with these contracts that we have here in Poland, because the most common is in general, in Poland, the type of employment is the contracts of employment, sometimes the contracts of work and the contracts of mandate. But in the Polish film industry, the most common is business to business relationship and the contracts of work, which is not regulated from the perspective I talked about in the previous screen. Because the civil code, which is the source of the contracts of employment and contracts of mandate, does not regulate the

time of the work, does not regulate the obligatory breaks and those aspects. So it's pretty much regulated by the market itself. So the law is not protecting those people like the producers, the people who are hiring, they're not obliged to provide some certain, certain conditions. So, this is one of the biggest reasons why it looks like that, because nobody tells how it should look like. So we go as far with these conditions as we can. And it is connected of course with the money, because in Poland we are struggling with not enough funds for the Polish movies. So we are just squishing that shooting time, shooting days as much as we can. So we put a lot of scenes in one shooting day. We put a lot of quite big scripts in 25, 28 shooting days. Which, if you look at that, you know, it's probably not possible to do this in sustainable conditions. To work five or six days a week for a maximum 12 hours. So they are accumulating too much work in a single shooting day. There is limited access to certain locations or the actor cannot stay for one more day. So they are going for this overtime and this circle just ends because no more money leads to that.

We cannot afford one more shooting day to work in a more sustainable way. Sustainable conditions. And as I said, just four years, three, four years ago, the Polish Filmmakers Union was established. And with this information that I started with, it's a really young union. In the other countries, in the western countries, the unions in the film industry work for decades. So they could establish some regulation and they could establish the regulation that already works and has a place in the legacy. We are just at the beginning of this road and the biggest point that we want to provide is this just limitation and to work in the sustainable working conditions. So we would like to limit the overtime hours like 2 per day and maximum 5 per week to provide this rest after the day, a working day to 11 hours rest after the week of work to 35 hours. And to set the Sundays and the holidays to be free from work. And as you can see, it's not super extraordinary that we want to live with, like high life, earn a lot and work nothing. It's not like that from my perspective. It's really basic. Basic like human rights, right to rest. It pretty much comes to the right to rest. So it's really basic. But this is what we are struggling with. This is what we are actually fighting with. Like the representatives of the film workers union here in Poland are dealing and here I will switch them to here maybe. I was also looking at other countries that have strong unions working there for the last decades. And they provided a lot of documents, like official documents which were the agreements between those unions and some producers' associations. And on these lines they were, they said this agreement has to set some rights, to set some conditions that has to be for example put in the contract. So everybody has to stick to that. It's not on the legal aspect like the acts or in the government, government rules. It's more like a disagreement between those two groups of people who want to live in, who want to make movies, which is really important. But they also want to have their life, their private life, time for hobbies, time for family and just live in the sustainable way between working in the movies and their private life. So these three countries, France, Great Britain and Germany with their agreements are the aim, the countries that we're aiming to become and we want to follow with these agreements because they're really great role models for us and a lot of solutions we want to implement for the Polish market.

But it, it needs to take a time, has to. We need to go through a lot of debates, a lot of talk and it just needs time. It will probably happen in the next few years, which I'm really glad about and I'm really looking forward to changing it, because for now it's really hard to work in the film industry, to stay sustainable in this basic rights, to have good sleep, to have good rest between working days. So I'm really looking forward to that. And, and that would be it for my presentation, it's just like the quick resume of my research that I've done. If you are interested more, I would really like to send you some sources that I was

searching for in my bachelor's thesis which contains most of this information. And thank you for your attention and for having me here.

00:21:17 Goran Pavlić

Thank you, Filip. This was a very, very informative presentation that you provided. Now I open the floor for any kind of questions or commentaries, comments from the audience. I guess there are many issues that many film producers share along the European continent which tackle these pretty sensitive issues of working conditions and right, as you said, right to rest and to have some like basic whatever physiological dynamics that enables you to be productive and creative and not just kind of a small peg in wheel or something.

00:21:59 Filip Kuczmarski

Yes, it's very difficult and very delicate topic because we don't want to do the situation that will like cut, cut day to 10 hours and provide a lot of free working days, not working days. And it will lead that the budget will go up so that the producer will not be able to do the movies because it's, it' nonsense. So it has to be like the really good collaboration between the unions between the representatives of the crew and the producers to do this in a sustainable way. And it's very difficult. I've been on some meetings between those two groups and I know that both of them are really willing to find some solution to make it happen. But it's simply difficult. It's not that the one side is good, the second site is bad and they are fighting, they are really trying to cooperate, but it's quite a big deal.

00:22:55 Goran Pavlić

This is exactly the issue that I wanted to ask you a bit more in detail. What is the stance of Polish, let's say educational institutions towards this kind of dynamics? Is there any kind of effort on the part of professors of film of any kind, production or directing or cinematography, to delve into these problems and to try to collaborate with the, well, with the film market, with the film production houses, with the maybe legislative bodies in Poland? I don't know, on the level of the city or of the state, are there any kind of initiatives in that direction?

00:23:32 Filip Kuczmarski

Very individual, if they are in there, involved in this process. But actually, at least in Poland, here we have the education mostly for the producers, for directors, for directors of cinematography, but we don't have this systematic education, for example, for art departments, for costumes, for sound departments, the makeup artists. And these are the people who work pretty much the most. I don't want to sound like somebody is working, like, putting less effort for something, but like in the numbers, working hours, these partners are working, working the the most. So I think the production site is putting a lot of effort to push that idea and doing something. I think it's still not systematic and it's not like education aspect is not leading here. Like everybody who is involved in the union, they are really hard working to make a lot of meetings with producers and provide some solutions. And some individuals from the education area are really helping in that. But this is not like some statement of the school in general. Of course we want to make everything great, but in the numbers, in the concrete actions it rests on the individuals.

00:25:07 Goran Pavlić

Yeah, well, something like that happens, I guess, everywhere where there are different motives and intensities in different areas of film production dealing with particular issues. Are there any other questions? Audience colleagues from the project? I think Filip raised quite a lot of very interesting issues. Well, if not, we may proceed with our next presentation. Filip, thanks a lot for your very, very exhaustive overview of the situation in Poland. I'm sure everyone could learn something from it and maybe apply it to the dynamics in their own environment.

00:25:56 Filip Kuczmarski

Thank you so much.

00:26:00 Goran Pavlić

Gosia sorry. And there is Dimitrios, if I can read alphabet. Yeah, wanting to pose a question.

00:26:06 Dimitrios Charitos:

Sorry. No, thanks. And congratulations. Thank you. That was very, very interesting. Thank you. Thank you..

00:26:17 Małgorzata Kotlińska

Yes, thank you very much. And now we are going to move to Jack, please. The floor is yours.

00:26:25 Jack Shelbourn

Thank you. I'll just bring up my slides. Hopefully you can all see that. Thank you so much for inviting me to come and talk. This is so wonderful to have something like this, a platform like this and especially international to share these ideas. Of course, because what we're dealing with is very much an international subject. So my area of research and practice is all in cinematography. So that's what I'm going to talk about today, specifically the climate impacts of cinematography and also starting to consider how we can develop a more sustainable future of this craft. So in 2020 the BFI released a study which found that the average tentpole film, so a major feature film, creates over 2, 800 tons of CO2. Much of that is down to transport and diesel generators. If you're like me, it's quite hard sometimes when you get data like this and you need to try and picture it in some form of tangible way. We get a lot of data like this when we're dealing with sustainability, but the Hollywood Reporter helped us out by describing it as a one, as 11 one way trips to the moon. So when you're thinking about it in that way, we can do six round trips to the moon and then you get stuck there on the last one. But the amount of energy created in one feature film, let alone all the additional impact by what you see on screen, how it influences people and that's one film. There is companies out there putting billions into shows that are not even being watched by people. So it's, that's a whole nother talk. But the impacts of cinematography in that aspect are huge. So thinking about it specifically about cinematography, sorry, how does it impact that 2, 800 tons? Well, the first thing that 51 of transport, a lot of the transportation on a film set is down to cinematography

on a tentpole film, you're going to have at least one camera truck, at least one camera, one lighting truck and at least one grip truck. They're probably also going to be more likely lorries. So there's a lot of equipment being moved around by these trucks. Then if you're shooting two cameras, which a lot of these films do, each camera is going to have an operator, a focus puller, a clapper loader and then a camera trainee. So that's eight people. If they're all driving individually, that's a lot of cars. Then the lighting team, you've got your gaffer, your sparks, your gaffer, your best boy and then sometimes up to 20, 40 sparks if they're all driving. If they're not commuting in the form of public transport or shared transport, that's a lot of additional transport. So cinematography alone is impacting on that number quite heavily. And then of course, mains energy and gas on film set is often used by cinematography of charging batteries, powering lights, powering laptops, powering the data wrangling servers and various other things. It very much contributes to this quite a lot. A real key one is diesel generators. They're very rarely on a film set for any other reason than powering lights. If they're there, it's because the producer wants you to shoot your film and make it like daylight, even at a sunset, because that's what the schedule requires. You need pi-powered punchy lights. These are generators of that. You do find them on production bases or unit bases to power the Winnebagos, the food carts and everything that you need.
But really the vast majority of the time, if there's a diesel generator, it's because the light requires it. So, cinematography, I am confident in saying, is a leading contributor to global carbon emissions from the impact of on individual films contributing so heavily to that 2800 tons of CO2 scale that up across all of the film and TV being created. The cinematography department is a leading contributor. So that's my kind of thesis statement at this moment. So mine that my research took me on a path where I started off exploring my own practice. I was examining why I shot the way I did, why I like shooting films a certain way. I do a lot of handheld, a lot of lighting environments rather than specific things. And I like to shoot very documentary style. A while, a few years ago, one of my colleagues sent me an article from American Cinematographer where the writer Benjamin Bee was describing this art form of new naturalism. And it was very clear that what was being described fits my style of cinematography pretty much. Bang on. So what actually is new naturalism? It was developed by Emmanuel Lubezki and Terence Malik when they were shooting the New World and the Tree of Life. It wasn't quite a manifesto, it was a dogma, something for them to use to control the variables on set to fuel creativity. And of course, Benjamin B. wrote about it in American Cinematographer. He described it as shooting exclusively natural light by day, using existing lights in dark interiors at night, favoring backlight to create continuity between certain shots in different times and places, which is a very common technique when you're limited on lighting. You go for a backlight rather than anything else. Then they like their wide angle lenses getting very close up to Actors. It's certainly a way I like shooting. And then a few other things they mentioned, such as seeking resolution, lots of handheld Steadicam, exploring all three dimensions of space, as well as things such as a constant desire to embrace serendipity. And also importantly, acknowledging that all good dogmas are made to be broken, like all good rules, when it's appropriate. So the key players in New Naturalism, as the cinematographers, you have Emmanuel Luzbeki, Tree of Life to the Wonder. And the film I want to highlight is the Revenant, which was shot exclusively with natural and available light. And then you also have Joshua James Richards, who shot a few films a little bit less known, but the main key one is Nomadland, again shot entirely with natural and available light. Both of those films won Oscars. They were celebrated at the highest possible pillar of achievement in the film industry. So by both shooting and practicing naturally available light, I can combine them together and look at their

techniques as practitioners. Then, reflecting on myself and the work that I've done, I've shot two films, feature films, shot plenty of other films, but feature films, which I can class as being shot around the style of New Naturalism, even though when I was shooting them, I had no idea about this. One of them is How You Look at Me, released in 2019, and the other one, Mindset, which was released in 2022, How You Look at Me was shot on location in France and London. We use natural and available light. One of the main reasons why is because on the recce, when we went to this mansion in France that we're shooting in, I plugged in one light, blew all the electrics. There was absolutely no way I was going to use any lights in there. And we weren't affording a diesel generator, so I used some LED lights. But pretty much we were reliant on natural available lights. And we chose the location or decided we could continue shooting there based on the huge windows. The type you can see in the top image, which is a great example of the kind of contrast the image we got and style we went for. Also shooting a lot around Golden Hour, towards the end of the day, in the middle image and also the bottom image is a great example of the kind of the available light that we used. We (...) a lot of tunnels in London, sticking a light meter out the car when we're driving around to find the right locations to film in. We did use some LEDs at times to augment things. Mainly it's like kind of a fill light to balance out the sun. But just as a side note, the screenplay had no sustainability message. It wasn't that we were out to film sustainably or anything because that was part of the film. Then Mindset, probably my most successful feature film to date. We shot entirely on location in Lincoln with a local crew. We actually shot it entirely with staff and students and recent graduates from the University of Lincoln and used equipment from the university. So we're even more proud that it's been so successful because it also had a cinema run alongside the award that it won. Natural light and available light was the main thing that we're going for. The bottom image out of those three was shot at 4:50 in the morning, really early because we shot around the solstice. So we worked out it's a north facing window. The exact moment would have the light coming in for what we wanted. So we were there really, really early and got the shot that we needed. But I did augment with LED light. The middle shot there is a nighttime dinner scene that had to be shot with LED lights. Because I needed to black out the entire environment to get the night feel. Because we shot it during the middle of the day. Again, because we're shooting around the solstice. There's barely a dark moment really the whole time.

So, we did have to. We were forced to do that in places. But the screenplay did have a sustainable message. That's something. That's an interesting side note. I'd started at this point to kind of start choosing, shooting this method because it actually worked for the screenplay as well. It reflected the message within the film. So my core principles that have developed in my shooting, which happened to coincide with New Naturalism, is the natural available light. Handheld camera work, guerrilla tactics and utilizing what's there on the day. And most importantly, working with and not against the environment. That's always been one of my key principles when lighting and working as a cinematographer. And I don't mean that extreme exclusively in the sense of environment being sustainable, though that is where I am now. I just meant that instead of spending my whole time trying to fight what's happening, I embraced it, went with it, allowed actors freedom to work, was quick at setting up and getting to shooting. Directors, producers, assistant directors, like that. I got more work. That's what I developed. But in the end, all of these became my creative restraints, my artistic limitations. They're all things that even when I start to become more successful, I still chose them on myself because they were my comfort zone. Being limited like this fueled my creativity and I wanted to embrace that. So how does that completely combine with my research, how's my practice combined with my research and into sustainability? Well, looking at what Pace and Strobe have written

in their new book the Filmmaker's Guide to creatively Embracing Restraints. Sometimes a limitation doesn't just create a new technology or advancement. Sometimes what it does is help a filmmaker create a style that becomes their signature and esthetic that helps define who they are artistically. That's exactly what happened. Limitations like I blew all of the power in that house meant we can't shoot with high end high powered lights that suddenly become a limitation that has fueled my artistic signature as a filmmaker. Combine that with what your said that the twin factors of limiting resources and consistent emphasis on cultural, social and political contributions of filmmaking create a fertile environment. I consent for the emergence of sustainable filmmaking practices. So combining that of artistic limitations using what's there it does naturally create a sustainable environment. So it is possible as my final kind of thesis statement building upon that or my develop my thesis statement as I should say, it is possible to make a commercially viable and industry celebrated films featuring sustainable cinematography at its core via the style of New Naturalism. With the Revenant winning an Oscar, Nomadland winning an Oscar and Mindset winning Best UK Feature Film at the Manchester International Film Festival. Not quite an Oscar, but we did get a four star review in the Guardian and it's the same four star reviewer as Peter Bradshaw who gave Oppenheimer four stars. So I like to think we would have won an Oscar if we were nominated but never mind.
But it just goes to show that it is possible not just to be making low budget films, it's possible to make something that audiences will watch and the industry will celebrate using the style of New Naturalism. So putting this into practice where I'm moving to next, I've created an experiment and I'm going to be conducting, as part of my Ph.D. I created a proof of concept to gain some funding which I did get, which is wonderful. I've set up a three point lighting setup. Once using a traditional lighting setup with free dado lights and once using a single light. But I bounce that around using reflectors. So I'm very interested in natural light but also how you can bounce that around and also bounce around a single light to make multiple setups when, if you have to use a light, how can I maximize only using one light for a setup? When doing this I managed to create a successful match in the kind of the style of lighting so the top left, hopefully that's correct, as you're looking at it, is the three point lighting setup. And on the top right is using the reflectors with a single light. The top is a log, so as it comes out the camera and the bottom is slightly color graded, just using a very basic Arri Alexa lut, just to give it a kind of a nice image. Interestingly, this brought up another discussion, which is kind of a side discussion, that the reflected one actually is more aesthetically pleasing. That's a whole other debate, but it's quite nice to see that it's not, I'm not just talking about a kind of a sustainable thing here, but where this gets interesting is when we look at the false color.

So the thing I'm trying to show is how I can expose the same image and give cinematographers an option to shoot this way knowing they can achieve the same style of image. So if you're not experienced with it, this is a false color reading. The colors correspond to different light levels on the image and I'm matching up and able to get quite a similar image using the two lighting techniques. And interestingly, the bottom left shows that we're getting a bit of hot spotting that red on the cheek from the three point lighting because we've got a direct light on our subject, so it naturally will be a bit hotter where this goes in the future and the next step. So my proof of concept shows I can match the setup and match the exposure. So what I'm going to do, and I've got funding to achieve this now, is do five setups, one with traditional 150 watt Dado lights because I can use data lights to control because I have access to them and they're easy to scale up

the working out the outputs based on the wattage. Do the three point lighting with 150 watts, three point lighting with 150 watt and reflectors, then again free with the 40 watt LEDs, and then once with a 40 watt LED and reflectors. And then lastly I'm going to do it with sunlight and reflectors only. I'm going to produce a poster and also a video where hopefully you won't be able to see much of a difference visually between any of them. Not certainly from a normal audience perspective to show that you can create the same image using the same techniques. But I'm going to use the BAFTA Albert carbon calculator to calculate the carbon, the scope one and the scope two emissions of all of those. Scope three is a bit of a push that my supervisor really wants me to, but I'll consider it. But that's a lot of data to get. But I can definitely do scope one, scope two emissions and therefore be able to present to cinematographers here. You can shoot this standard style of shooting the same way. And also here is the mitigated impacts of doing so. It's not that these techniques are necessarily new, it's just no one has gone and recorded it in this way and presented it in this way. And that's what I'd like to do as part of the practice for my PhD.
Thank you so much for listening. There's a few references if anyone is interested and I always can email that as well. If anyone would like to see that. If there's any questions, I'll be happy to answer them. Thank you so much for listening and I hope I didn't talk too quick. I am aware I talk really quick.

00:43:15 Goran Pavlić

Thank you so much. It was great. Gosia, you raised your hand or just clapping? And Dimitrios?

00:43:28 Małgorzata Kotlińska

It was very practical and very interesting. And if I might share my question because I was wondering, because this is a huge advantage, especially when I think about the education, because at our film school we have lots of filmmakers who got used to the technology, the equipment, the tools they use. And this is a huge discussion about changing the mindset and values. I don't know what is your reflection about it?

00:44:05 Jack Shelbourn

No, that. That's it for me. There's a lot of. I've written further in other places about this. A lot of reports that come out that talk about changing technology or just shifting to lower power lights, or changing from diesel generators to battery power units which still need to be powered. The electricity needs to be generated somehow. And it's all good. But there's also a great opportunity for people to just embrace a different method of shooting that by embracing those constraints, which is something the film industry's done for a very, very long time, decades. There's a. We're problem solvers. The people who work on film sets are natural problem solvers. And we have a massive problem and instead of just thinking, well, we continue the same way, but let's just use a different type of generator and a lower powered light. Let's instead rethink the kind of methodology and style of where we're shooting. If we want, like if you want to do a shot like the one that we wanted to do with the sunlight coming through the window, let's get up at 4 o'clock, let's shoot that shot in the solstice. And when the light's going to be there and we can get it. We all had a nice break afterwards. We had a good few hours where people could kind of rest and a few people napped and we did. We didn't have particularly onerous day. We, we factored it into the schedule but what we weren't doing is one of the initial ideas that the producers said let's scaffold it up there, get a light coming through and we can shoot

whenever because that would have been a major carbon emission that was unnecessary when the sun will do it for us. And frankly it's better light quality than anything else anyone think can produce. So I was, you know, that's it. It is about, I'm not suggesting you're going to do it for everything. Chloe Zhao tried to do it for, with Marvel. She tried to shoot Eternals the same way her and Joshua James Richards shot Nomadland. And Kevin Feige was amazed to see shots that were actually shot in real environments, not green screen. But the way the producers and those people work is that they want you to. They want to be able to control stuff in post production. It's one of the problems with virtual production and it's also on the production problems when you suggest that budgets can be cut and smaller because of sustainability, because producers want big budgets and they want big control of post production. So, not shooting green screen stuff. So I'm not saying that we need to do it for everything, but on balance there's a lot of films out there that you can film this way and still have the height of success. Like the Revenant, like Nomadland. And so yeah, it's about a shift in the mentality of those actually at the heart, at the top of the craft, the cinematographers, rather than just let's swap out that light bulb for one that's got, that has less power but continue the same method of working.

00:47:01 Małgorzata Kotlińska

Thank you.

00:47:04 Filip Kuczmarski

I must admit that it's really mind opening. Like I have to really think about it a little bit more because as you said, it doesn't have to be the alternative for the whole industry, but it's just some approach that can be applied in quite a few productions and still have quite a huge impact. So yeah, that's really interesting and thank you for the presentation.

00:47:26 Jack Shelbourn

No problem, no problem. I'm glad it's kind of spared it, thoughts. That's good.

00:47:33 Monika Glowacka

Jack, I was also impressed by what you've said and what you presented today, but I was wondering where the impulse came from, from your side to, to making those productions more green or that was the idea of the producer. Or also you cooperated with other artist departments or it was your own initiative to make those films in that way and testing all you were talking about today.

00:48:14 Jack Shelbourn

Yeah. So I mean, the bottom line is I shoot this way and shot this way because there was no money for lights when I started. There was nothing. We just, we scrambled. So it's similar to what Mette Hjort, what's talking about in the quote I use, because what she's talking about there is filmmakers in Burkina Faso and Palestine who are just using absolutely anything available to make the film, to get the shot. So it's kind of a similar kind of style. And that's developed into my comfort zone. And I actually, when I got to a point where I would be given the choice to put a whole kit list together, sometimes I'd be like, I don't want to know, I liked being thrown something at me and problem solving and creating it. So that's what became my chosen artistic limitations in that way. And then when Mindset came about, Dr. Mikey Murray, who' s the writer and director of it, who I work with, one of my colleagues here at Lincoln, not only were we planning on doing something that we knew had a sustainable theme, something he's big on, but also, you

know, we wanted to do it as a student engagement project, use the students. But even at that stage I didn't. I wasn't aware of the concept of New Naturalism and I wasn't aware that what I was doing was actively sustainable. We were doing it because it makes sense to work that way. The producer who suggested putting up the light up there, I said no to that because I said we're doing it for a single shot. The sun will be up at that time. Let's just do that. We can make that work in the schedule. It's looking back, I'm using it as a case study, as a springboard for my research as I've realized it works within the confines of sustainability. So I kind of, I was reflecting on and thinking about creative restraints and I was interested in that, thinking about my practice and how I came to enjoy shooting the way I did, and the roots of that when when considering about where to go for a PhD, and then it was discovering New Naturalism and then talking further and discovering more people work in the sustainability area. I realized the knock on effect and I've been interested in sustainability elsewhere. It just took a while before all of a sudden it, at that moment where it all clicked together and that's where I got to two and a half years ago and started I put my PhD proposal in. I hope that answers the question.

00:50:36 Monika Głowacka

Congratulations. Yes, that's great.

00:50:38 Jack Shelbourn

Thank you.

00:50:41 Małgorzata Kotlińska

May I have one more question because I was wondering if you have any eco-friendly ideas of the post production because this is very, you know, very important stage in the film producing but lots of, you know, problems with

00:51:07 Jack Shelbourn

Yeah, I mean it's not, it's not completely my area, but I work with plenty of people in it. I mean, I wish I remember where it was, but there's some great case studies of post production houses in Scandinavia where the servers are what heats the entire environment. So rather than pumping out the hot air that comes out of all the servers just out, that's the only form of heating in the entire area. And they kind of feel, kind of rotate that back and there's a lot of using the energy they produce also to power the energy that's produced in that way kind of uses heat energy to power other aspects. But post, I mean one way you could think about impact on post production is having kind of limitations on how much you record. One of the problems now with digital is people, directors hit record, then all of a sudden want to talk to actors for 10 minutes before the scene happens and that's wasted footage that then goes and sits on a hard drive and sits on some tape and then just takes up power. So that's a mindset change that can happen on production. Even post production is interesting as well because as things move towards virtual production, post production suddenly flips and becomes pre production because you're making a lot of the assets that you would have made in post production in pre production. But you still have places like the ARRI virtual production stage in Uxbridge. It's in London and it's in Oxford, but it's still in London and they're still using generators to power it because they can't get the power from the main squid to achieve what they need to for virtual production.
So virtual production is kind of sometimes seen as like a, a sustainable way forward. And I'm completely disagreeing in that from everything I've seen. And so that's, that's post

production flipped as well. Like it's, it's, it's still having a major impact and like with virtual production it's not quite your, your question. But the problem with virtual production is all of the executive producers are used to changing stuff in post production which they can, in green screen. So all of a sudden they're getting everyone to Rotoscope, everything in virtual production to do it all in post production. So the reason why I highlight that is because again, it's the mindset change. A lot of post production is what it is. It's going to be on a computer. It's going to need power. You're going to probably be in a room with no light. So no natural light. Is that the nature of its lighting involved? But the mindset of the way the film's shot and the way it's run in post production is the thing that needs to be focused on. And so it kind of translates the same way that what I'm talking about mindset translates into the screenwriters. They're the ones who write that the film's gonna take place over 40 countries and it's a hundred cars driving around the streets of Rome. I'm not saying that that's not film we should be making, but they're the people who are writing this that then goes on and has the knock on effect. So it's mind mindset shifts throughout the industry at different phases that's needed. Which works so well that the film I shot was called Mindset. It's very useful in that sense. I hope that answers it. It's not my main area, but I can see parallels of what I'm looking at throughout.

00:54:19 Małgorzata Kotlińska

Yeah, yeah. Thank you. Because I was also wondering about this virtual production. It might be helpful. So. But maybe this is the idea for your habilitation, the next step. Yes. Thank you for your presentation. Okay. Do we have any other questions? Maybe? Okay. Thank you very much. So, Monika, the floor is yours right now. Thank you.

00:54:57 Monika Głowacka

I will start my presentation soon.

00:55:01 Małgorzata Kotlińska

Yes, we see it.

00:55:02 Monika Głowacka

Okay, just hold on because I have to start from the beginning and usually it. Sorry. That it was set. Okay. So I thank you also for inviting me here today. I had a chance to present the activities of our group Film for Climate. But I would like to summarize what we've already done. And I think that it will be a little bit different perspective that it was presented by Jack and Filip. So I think that it will be a nice combination of three presentations. I used to be film commissioners, so I started in 2007 to build, to create the film commission in Lodz. So we know each other with Filip Kuczmarski pretty well. But last month I decided to change the institution. And right now, from the beginning of November, I'm in a Polish creative industries development center. Very, very difficult name. But we will be changing it also. So right now I'm responsible for not only audiovisual sector, but also other sectors. And I hope that some activities we will be implementing in the near future here in our institution. But as I have a strong, maybe not so strong, but a lot of years and experience in the audiovisual industry, I would like to share with you what we've done in the Polish industry up to now. We as a film commission and the regional film found are a member of the CINEREG organization. This is an organization which is gathering all the regional funds from Europe and we are nn active film fund in the green group. So we also signed a

manifesto dedicated to the film. To change film. Film industry into being more green. And that's how it started to think about the Polish industry actually. Because we also saw what was going on on the set and it was pretty, sometimes scary, for us. So we also decided to think about how to gather forces here in Poland. And that's how the Film for Climate started to act. This is a collective group, so we are not a kind of official organization in Poland. We are representing different entities starting from of course production companies, but also freelancers, location managers, but also important industry organizations such as Polish Producers Alliance or the Association of Advertisement Producers, also the universities. We are also a member of the Polish Producers Alliance. So we are gathering there and discussing different issues there too. Now there are also film studios in our group. So we are right now having more or less 50 members, I suppose. So we started like, it was the end of 2020, to think about what we can do as a group and how to change the, as you said, the mentality and the mindset. And we decided that first of all we would like to focus on building awareness of the industry. How film production influences the environment. But also we wanted to create and present some tools which will be helpful to the industry and to the film crews. Two. So that's how it started. It was 2000. Sorry, it was 2000. I think that I missed one slide. It was 2001 when we announced.

01:00:31 Filip Kuczmarski

Sorry to interrupt, but I. I'm afraid your presentation is not switching or maybe at least my. From my side.

01:00:38 Monika Głowacka

Okay. Okay. So I think that. Yeah, we are on this, the second slide, but it's okay. The first activity of ours was preparation of agreement for sustainable audiovisual production Film for Climate. And we announced it at the most important film Festival in Gdynia. So we had a chance to say about this initiative and what we are doing. There are different entities in this collective. We can separate, we can apply for different money, from different sources and to share different parts of initiatives or tools which we wanted to prepare. So it was 2021. We concentrated, as you said, as you saw, we wanted to concentrate also on the education issues. . So we, as a Polish Producers Alliance created a special educational program for the beginners, but also for those who had some experience in greening the production. So the initiative called Green Audiovisual Production Laboratory was created in 2022 by the Polish Producers Alliance. And together we gained money, financial support from first the original representation of European Commission in Frosa and then the Polish Film Institute. Right now we are organizing or Filip and Film Commission are organizing those workshops thanks to the support of the national Reconstruction plan. So that this year the third edition is taking place and the numbers of the green consultants we had a chance to learn from and to create with was 17 people and the ambassadors of Green Audio visual production. The 32 people had a chance to receive the certificate. Of course, we also concentrated on creation of the Green guidelines and actually started from that point, some kind of educational tutorial too. So we are going step by step to respond to the industry needs and what we see that it's really important. Of course we've got good examples in Europe, but still lobbying on a national level is important for us. We started it from the very beginning. We tried to convince the Polish Film Institute to implement some solutions dedicated to naturalization, making the film production less carbon. So we created together with the Polish Film Industry also the directory of eligible costs related to green film production, which is part of the cash rebate regulations. So that is why the talks to get the talks with

the Ministry of Culture and National Heritage and Polish Film Institute started a few years ago. But we had. We've got a success this year because those green film production costs will be eligible from the 27th of November this year. So yes, it's a part of the regulation dedicated to the cash rebates. But still we would like to implement some solutions in the operational programs in Polish Film Institute. So this is also our goal for next month. We as a group are also concentrating on promoting the information why it's important to have the production more green, environment neutral. So we also had a national campaign in social media. So we asked a famous Polish actor to take part in this campaign. And it had very nice effects because there were like 640.000 views of this spot. So it was pretty, pretty good effect for us too. So as you can see, we are acting in different areas. We also concentrated on the award because we wanted to show those productions and show mainly producers and directors who are thinking very, very seriously about green film production and showing that this is possible in Poland too. That's why the Film for Climate award has started. The first name was Climatic Film and it was sponsored by the Electrolux company, when we announced it at the Gdynia Film festival in 2022. This year we had on board the representatives of the European Commission in Wroclaw and we changed the name of the award for the Film for Climate. And we are very, very happy that we still have a partner in that area too. And of course there are much more of our activities. So as you can see there are some podcasts, there are some presentations, we are cooperating with different festivals. Also we wanted to focus as a film commission. I show you the project we are doing right now. I'm still, I'm still saying that we are doing SFM commission. So I know that I'm in a different place. But we now.

01:08:24 Małgorzata Kotlińska

Sorry, Monica, because we still don't see any slides. But maybe it's possible you will try to the full screen and we will see the project because it might be important.

01:08:46 Monika Głowacka

Maybe I'll try to. I don't know why. Okay, I will try and do it once again. And how about now?

01:09:03 Małgorzata Kotlińska

Yes, and try to move the slides. Yes, everything.

01:09:09 Monika Głowacka

Sorry for that. I thought that it's working.

01:09:14 Małgorzata Kotlińska

The description was great that we saw.

01:09:18 Monika Głowacka

Yes. So you see that we are a group of different entities. I'm still saying that we, we, we. But there are a lot of. A lot of partners who are responsible for all those activities. But. But we're meeting together month by month and trying to figure out what is still necessary and how to act in that area. So I also said that the film commission gained money for the audiovisual project Green Laboratories. So the educational program. And yes, there are parts dedicated to script, script writers. So how to prepare a good script, including what

you text at, so how to make from the very beginning, how to think about production from the very beginning to make it green. And also there are some communication issues and of course also meetings with Green Manager saying how to, how to deal with different problems. So you see here, what are our plans for the next future? We know that there are still a lot of things to do but we hope that together we will finally, finally convince the the big partners like the Polish Film Institute but also the entities like networks or the platforms Netflix, so the platforms or Cannon plus etc to maybe design such kind of document as it was in Germany and how the Green Project Protocol started or the Albert also was created in a similar way. So yes, we are moving this road, but you can see that this is Green Root initiative. Thank you so much.

01:11:55 Goran Pavlić

Thank you, Monica, for this exhaustive overview. Now we're setting to usual questions and comments. Jack and Gosia maybe, or were they just clapping?

01:12:12 Małgorzata Kotlińska

Yeah, I was clapping because it was very interesting and very descriptive. So thank you Monika. But maybe I would like to ask you about the directions and new steps among the human rights because it's very interesting when we feel we discuss this social sustainability together. I think this is the very interesting part of making greener the filmmaking.

01:12:42 Monika Głowacka

Yes, yes, we thought about that. So we went the road like ESG. So you know the system of certification probably for the bigger companies right now, but we've got this part dedicated to ecology, but we wanted to concentrate on social aspects of production. So that's why the part of our new project, the part of project that will be implemented by the Witcham Commission, is human rights rules and kind of creating a kind of guidelines for the audiovisual sector too. But we wanted also to dedicate a podcast because we will be having some podcasts about how to act in different departments and whatare the solutions which can be implemented in Poland and one of the podcasts we would like to dedicate to the human rights too. And the third part I think, and that there will also be some information about the human rights during the laboratory program. Educational Educational program. So yes, we are thinking about that and by the end of this year it will be announced. So not too many days for that. But Filip is doing perfect with that topic and I think that he can say much more about that.

01:14:37 Filip Kuczmarski

I confirm that we work on that. So yeah yeah, even in front of me I have the script for this episode of our podcast that will speak with the expert about the human rights aspect and it's cover also this, this aspect that I was having my presentation about but also some about the cultural aspects about the providing for local experts, local crew members to encourage them to join the shooting in certain city. So yeah, it takes place and will be as Monika said announcing at closer to the end of the year.

01:15:23 Monika Głowacka

And we are cooperating with the University of Lodz in that aspect and also with the Polish Institute for Human Rights and Business.

01:15:37 Małgorzata Kotlińska

Thank you. Any other questions? Maybe from the audience or our colleagues?

01:15:48 Goran Pavlić

I have a question. What is the stance of Ministry of Culture? Do they collaborate with you? Is this a kind of a project of national significance? Or, is this, well, support only like: that's it. Because we inCroatia, the situation is, we have the Croatian Film Center, of course, but in the projects of such wide range, usually all the governmental and non governmental instances are included in such big projects. Do you collaborate with Ministry?

01:16:24 Monika Głowacka

We are cooperating, but of course it can be much stronger than it is right now. But I think that what the Ministry expects is to show them the solutions and the concrete projects which can be implemented by the Ministry. So I think that we as a group rather have to think how to not announce, but how to present it and how to discuss with the Ministry. We've got a success on the Ministry side, but on the other hand we've got the Polish Film Institute and we had some talks, but it is still really difficult and maybe not really difficult, but it still needs to wait for the decisions. There are some movements right now, there on the post of the director, so we have to wait for any decisions. But my recommendation is if you have a concrete project and you're showing what you've already done in the industry and that the industry is seeing the problem and finding solutions, making their own steps in that area is helpful from my perspective.

01:18:01 Goran Pavlić

That is very useful. Yes. Any other questions, comments, closing remarks? If not, I would like to thank everyone for participating, especially our presenters, for very, very inspirational presentations and… Okay, Marta, sorry, I haven't seen it. Oh, this is just clapping. I can't get used to it.

01:18:41 Marta Materska-Samek

I was just clapping. However, what I have to add, that the money coming from Recovery and Resilience Program are supporting a lot of green transformation, because one of the KPI is to contribute to the green transition. So this is money which is connected to the greening film industry as well.

01:19:04 Monika Głowacka

But there are a lot of partners which helped us with the money and they were very engaged in what we've done. So we are really thankful for that, because without that, you know, nobody will be working for free. And it's on the basic step, it's very crucial.

01:19:31 Małgorzata Kotlińska

Okay, thank you very much for your presentation. Lots of reflects, reflections about the topics you share so thank you to the audience for being with us this time. So wish you all of you good afternoon and see you soon I hope.

01:19:56 Goran Pavlić

Yeah, in 14 days we have another one, the last one in this session. So I hope you'll be with us with three, probably three new presentations. So, on December 3rd.

01:20:07 Małgorzata Kotlińska

Yeah. Okay. And thank you Goran and Sophie.

01:20:13 Filip Kuczmarski

Thanks, thank you a lot for inviting me, because it's a very first experience from my perspective this kind of presentation and talking about this aspect. So I really, I really enjoyed it and I wanted to thank you Ms. Kotlińska for inviting me and having that opportunity.

01:20:32 Małgorzata Kotlińska

Oh thank you. I think that was the first step.

01:20:35 Goran Pavlić

The great first step

01:20:38 Małgorzata Kotlińska

Definitely. Yeah, yeah. Thank you and bye bye. Thanks.

Event 3 / Season 4

Degrowth and sustainability in audio-visual field

Date/ Time: Tuesday, 3. 12. 2024 | 15:30 – 17:00

The third Green Screen International Lecture, part of the Erasmus project Green Education in Media (GEM), aims to present certain aspects of Polish experiences in developing sustainable practices in artistic producton. Further, it will elaborate on the concept of degrowth and its relation to audiovisual production.

The GEM project focuses on promoting environmental awareness, supporting green and digital competencies, and developing new, sustainable curricula and media production methods. The project involves universities from seven countries: Germany, Greece, Finland, Croatia, Malta, and Poland.

The meeting is curated by Małgorzata Kotlińska from Lodz Film School, Poland and Goran Pavlić, Academy of Dramatic Art, University of Zagreb. And the guests are Anna Wróblewska (Poland), assistant professor at Lodz Film School with long experience of creating cultural strategies, and Mladen Domazet, philosopher and member of Croatian Institute for Political Ecology.

Participants will find out more about Polish experience in building institution which support sustainable artistic pcatices. Furthermore the concept of degrowth, especially degrowth doughnut and it significance for understanding complex social phenomena will be elaborated.

Speakers:

- Anna Wróblewska, Assistant Professor at Lodz Film School, Poland
- Mladen Domazet, researcher at the Institute of Philosophy, Zagreb, Croatia

Curator and Moderators:

- Małgorzata Kotlińska, Lodz Film School, Poland
- Goran Pavlić, Academy of Dramatic Art, University of Zagreb

Summary of the meeting

Anna describes the beginning of the green film movement in Poland which was inspired by early efforts in the US and UK. A key moment was when Arnold Schwarzenegger, as Governor of California, commissioned a UCLA study on the film industry's carbon footprint around 2014–2015. The British Film Institute and the Albert Guide also played a major role in shaping sustainable film practices.

Films like "Mamma Mia! Here We Go Again" and "Yesterday" serve as best-practice models, featuring recycling and composting, use of biodiesel from cooking oil, LED lighting and use of public transport, donations of clothing and food.

Green film initiatives in Poland only began around 2020, mostly led by young independent producers, not large institutions. Key supporting organizations include the Lodz Film Commission and KIPA (National Chamber of Audiovisual Producers). Current practices and Recommendations in Poland include using recycled paper, banning plastic bottles, employing local crews, using LED lighting, and better waste management. However, many practices are still ideas rather than common standards.

But major challenges still remain firm. They include lack of legal framework and full support from the Polish Film Institute, long delays in connecting to green energy sources, no recognition for using sustainable materials in grant applications, difficulty in changing long-standing habits, especially around transport and logistics. But there are some optimistic trends emerging, particularly at film festivals: reduced print materials and more digital communication, online industry meetings and limiting domestic flights. However, festivals still struggle with sustainability due to the necessity of in-person events. While full sustainability in cinema may be unrealistic, progress is possible. Ongoing change depends on young filmmakers, innovation in technology, and institutional support.

Mladen Domazet, philosopher and researcher at Institute for Philosophy outlines his journey in sustainability and social justice movement, including founding the Institute for Political Ecology in Zagreb in 2015 due to the lack of academic support for topics like degrowth. IPP contributed to IPCC reports, UN climate negotiations, and organized key degrowth conferences. His current work includes an EU-funded project exploring narratives for a sustainable economy and supervising student research on emerging issues like lithium mining in Bosnia and Herzegovina.
He stresses the urgency of systemic change, citing projections that by 2070, vast regions may become uninhabitable due to climate change, affecting billions. This crisis is linked to deep economic inequality, where immense wealth is concentrated among a few, while GDP remains the dominant but flawed measure of progress. Originally intended for

wartime planning, GDP fails to account for well-being or unpaid labor and incentivizes environmental harm.
He elaborates on how society prioritizes profit over sustainability, with fossil fuel investments still surpassing renewables. Citing versatile documents and research, he calls for a shift away from growth-focused thinking toward values of justice and quality of life. The climate crisis stems not only from emissions but from entrenched political and economic systems that must be fundamentally reimagined.
He goes on to critique how media distorted a sustainability conference in Zagreb, misrepresenting degrowth ideas with alarmist tropes like barbarism, foreign conspiracy, and communism. Media pushed paternalistic, denialist narratives, often led by senior male scientists claiming capitalism as the only viable system. Attempts to "green" growth are seen as insufficient, with proposals like "agrowth" essentially being watered-down degrowth. The speaker stresses the urgency of climate limits and proposes a shift in thinking using visual models like the degrowth donut, which combines ecological boundaries and social needs.
This model, developed with international collaboration, expands on Kate Raworth's donut economics by incorporating cultural and political dimensions. It aims to measure sustainability beyond GDP by including indicators like democratic trust, corruption perception, and ecological impact. Case studies show how it can assess cities (e.g. Pula), countries (Hungary), and even institutions (e.g., the Croatian National Theatre), identifying both obstacles and strengths.
Art and storytelling are emphasized as tools for reimagining alternatives. The talk ends with a call for participatory processes to rethink our economic paradigm, insisting on measuring not just limits, but also aspirations for well-being, justice, and restoration within planetary boundaries.

Transcript of the 3rd Event

00:00:00 Małgorzata Kotlińska

With my partner Goran Pavlić, welcome all very warmly, all participants to today events.This is the part of the Green International Lecture series which is organized by our GEM project team. And this is the Green Education in Media project. And today's topic is the growth and sustainability in the audiovisual field. And during the meeting we will explore, we will try to explore how visual media can address and problematize sustainability issues in film production. Our goal is not only to share the knowledge, but also to inspire and lead us to very many reflections about sustainability. And first of all I would like to introduce our presenters. With us is Anna Wróblewska from Poland. She will present the lecture titled Green Film and Institutions, discussing the role of the institutions in promoting sustainability practices in filmmaking. I think that we will see lots of examples of such usage. Anna is a holder of a doctoral degree in humanities, an academic teacher, a writer, culture manager and spokesperson. She works as an assistant professor in Lodz Film School in Poland. And what is important, her academic interest includes the first and foremost, as she underlined, cultural project management strategies, creative industry, the Polish film industry, animated film and children films. She was a spokesperson for Polish Film Institute, association of Polish Filmmakers, Monk Studio and Gdynia Polish Film Festival. She's an author and also co author of a number of books and articles. She is a two time laureate of Polish Film Institute Prize, honored by Polish Minister of Culture and national heritage in 2005 and awarded the Bronze Gloria Artist Medal for her service to culture in 20. And our second presenter is Dr. Mladen

Domazet. He's researcher at the Institute of Philosophy and the Institute for Political Ecology in Zagreb. In Croatia he was a member of the organizing team of the 6th and 9th International Degrowth Conferences and currently works on how social sciences paradigm shifts, degrowth-compatible exploratory framework of the social transformation and social attitudes relevant to sustainability. The Growth Donut is a visualization and social strategizing tool which is developed by a transdisciplinary research team and Transformation Compass piloted with diverse stakeholders in European semiperiphery. So we are very welcome that you are with us today. And I would ask before we start, maybe if Bjorn is with us, would you like to welcome our guest? Björn? Hello. Maybe he's not. It's not possible to connect right now.

00:04:56 Sophie Tummescheit

Sorry, he can't at the moment.

00:04:59 Małgorzata Kotlińska

Okay, so because Björn is our leader of the project. So special thanks also to him for inspiring us to collaborate together on this sustainability issue. So at first we start with Anna Wróblewska - Green Film and institutions. Anna, the floor is yours. Let's try.

00:05:28 Anna Wróblewska

Yes. Okay. Wait a moment. I thank you for the invitation. Yes, everything is okay. Everything is okay.

00:05:40 Małgorzata Kotlińska

Yes, we see it. Thanks

00:05:49 Anna Wróblewska

Wait a moment because I have a problem with my screen. Okay. Okay. Every. Can you. Can you see everybody? Mr. Arnold Schwarzenegger.

Okay. I would like to talk about the origins and genesis of green film production in Poland. About models, about the problems and ideas we have here in Poland about legal solutions which we have not yet. But if you know, I think inspiration came from United States and the United Kingdom and I don't know if you have heard about the connection of
the connection between Arnold Schwarzenegger, the governor of California and green film production? Have you heard about it? Because I like this. I like this plot very well. Nobody. Okay. So as you know, I think the first initiative in green film production are in 2014, 2015 and Arnold Schwarzenegger, film star of course and the governor of California, decided to commission the first study on the carbon footprint and pollution generated by the film industry in Los Angeles. Plus of course, to propose solution. I have this study. This is prepared by UCLA. I can share if you want. You can email me and I can send it if you want. If you want. And I like this. I like this history because, as you know, films were not environmentally friendly, weren't green.

All this. All this explosion, the visual effects on set. So for me it's interesting. The story is very interesting. I like it. And in Poland, in Poland, of course the producers and institutions mainly use the experience of the British Film Institute. And the Albert Guide.

The Albert Report. I think everybody knows the Albert Guide. I like this. I like this report. I very often read this book and for me it's very useful. I mostly like the example of green solutions in British and American films. Then I said I would like to underline two of them. Mamma Mia, Here we go again. And of course, Yesterday. And these are examples, these two film productions are the examples of very developed sustainability in (...). I'm sorry, I'm a little bit nervous. It is my first time here in this. So I would like to present to you some solutions with Mamma Mia. The second part, of course, it was produced six or five years ago. Production partnered with a local company to educate crew and implement a waste diversion program. For example: recycling, composting waste to energy. That's one. The second, heaters were powered with biodiesel made from used cooking oil. I don't know for a solution like this in Poland. The crew had, of course, water bottles. It's standard now, I think. office paper came from recycling and majority of the set lights were LEDs. I like the story because production donated clothing, shoes and catering to the organization, non profit-organization. I checked it. But we in Poland, we do not have such legal solutions. And for me it is a big, big problem. And the similar solution were in Yesterday. And they chose the public transport for the crew. They limited flights, llimited trains. They had more solutions, more transport solution. And it was one of their. One of their. One of our, how to say, way of. Way of, how to say… I'm a little bit, a little bit nervous. I'm sorry.

00:11:46 Małgorzata Kotlińska

Yes, it's okay.

00:11:48 Anna Wróblewska

Because it is my first time here and so I'm a little bit stressed. So, in Poland, the first initiative came in 2020, during the pandemic, which of course complicated the process. Importantly, it is what I would like to underline, most green initiatives depend on young independent producers, not on institutions. Malgosia, do you agree with me?

00:12:27 Małgorzata Kotlińska

I totally agree. And I think that they are the leaders and that we follow the young filmmakers because it's the trend which should be among the others.

00:12:41 Anna Wróblewska

Yes. The exceptions are of course, the Lodz Film Commission, which you know, I think. Or our National Chamber of Audiovisual Producers. The National Chamber of Audiovisual Producers called KIPA. This is our current center of competence for green filming, I think. Do you agree? Once again, I think these two institutions are the most important.

00:13:11 Małgorzata Kotlińska

Yes, we have our talk by Monika Glowacka, so I think that she shaped very well.

00:13:20 Anna Wróblewska

Yes, of course. And Polish green film production concerns areas such as office savings, paper reduction, cuttering, cleaning waste, washing up, transport solution, searching for alternatives to power generators. And it is the most difficult thing, I think. Energy savings, the same. And limitation on electronic data transmissions. It is our ecological areas. Yes. And the main recommendations in green production prepared by the Lodz Film Commission and the National Chamber of Audiovisua Producers are as follows.
I don't know if you can see it on the screen, but it is use of recycled paper, yes, respect and limit paper, respect for the environment during location shooting, employing local crew, ban plastic water bottles, providing grid power to the backlog, changing to LED lighting and recycling dedicated to recycling facilities as a part of management plan. I think the last idea isn't very popular now in this moment. But I think it could be. It could be possible in the future. I can't find it in our sets. Maybe you have another impression, but I think we are still waiting for the ecological solution. Ecological ideas in management plan. I think it is only idea. It is only idea of determined persons, of determined assistants and young people who are interested in this area. What do you think?

00:15:45 Małgorzata Kotlińska

I think that maybe after the presentation we will have time to discuss. Maybe there will be the questions. But I think that of course we have lots of directions, but it's very hard when we think that we might decide as a plan without approving by the crew, and approving by the values or importance for the members of the crew. Yes. When we all decide, okay, we will use it. We will change the way of film making is the first step, but the second step is how to implement it to the members of the crew.

00:16:34 Anna Wróblewska

Yes, but I think it is always our doing. But it's not. It's not reality. And of course public transport. Public transport options in planning. I think it's more possible. And we have informal ambassadors of Green Production Poland - Bartosz Bielenia, maybe you remember him from Corpus Christi Film and director Jagoda Szelc. And it helps. I think it helps. And what would I like to say to you, to tell you about some problems. And the problem is the points for Green Film production are mainly added by one or two regional film funds Krakow and Lodz. And we are still waiting. We are still waiting for a change in the perspective of the Polish Film Institute. I know the project of new program of Polish Film Institute. I can't find it. I can't find any green solar solutions in this document. Maybe it will change. But this is a problem because this is the most important film institution in Poland. So I'm afraid a little about it. And what else? We have a big problem with recycled set decorations. Most of decoration go into the mixed waste. This for me, I can't tolerate it. But it is true. And what else? In Poland the team has to wait for permission from the power plant to connect to the grid for two weeks. We don't have that much time because time is money. The practices from the part of the power plants should be changed. Yes, but if you have to wait two weeks for permission. This is a problem for manager, for producer. What else? Yes, a problem with clearing a Polish Film Institute grant. If you are clearing an application to the Film Institute, you cannot show that you have to use recycled materials. And now there is no solution for this. I have no idea. Maybe you can help us and of course, I think you know it very well. It is hard to change habits regarding transport campers and logistics. Film stars, private cars, private transport. Probably

because we talk about about 70 years of old practices. So I don't know how much time we need. What would you like to add? My last slide is about the Polish green festivals because it is more optimistic because we definitely see an evaluation of film festival in Poland. The biggest film festivals have already changed their practices. And of course due to young people in the festival teams, due young managers, press spokesmen and the new practices in Poland. The biggest Polish festivals are, as I see, reducing prints and develop more sensible marketing, more digital marketing than paper. For example, some industry meetings are organized online and I see more restrictions on domestic flights. But of course, the festivals in Poland are never very green. Because the festival is always a place of meetings. Yes, we have to meet and we have to be in a real place, real time. So I think we can limit some materials, some paper, but we cannot limit our meetings. Of course we can dream about sustainability, but cinema will never be green. Yes. And we always generate carbon footprint. Yes. Thank you for the invitation. Sorry for my English. I'm very nervous because it is my first time online about the subject. I'm very sorry because it is a new experience for me. So, thank you.

00:23:33 Małgorzata Kotlińska

It was great. Thank you very much. Sometimes the first time is. You know, as a first time we are nervous, but the second one will be better. So welcome in our team, in our group. So it was very interesting because you summarize all of the topics that we are very focused on in the films, but also how the institutions might support this process. And Anna, don't stop believing that the filmmaking might be greener. Maybe we will cut it so fully green.

00:24:17 Anna Wróblewska

But we can limit. But in my case, it’s green.

00:24:24 Małgorzata Kotlińska

Yes, but, but it's also the discussion about the technology. Yes, because if the technology on the postproduction and on the film sets will change, and will be innovative, so maybe it might be more sustainable.

00:24:41 Anna Wróblewska

Yes, yes, of course. In animated films we now chose LED lighting. And I can see the difference because I work in animated film. So, I consider, I can see this, this choice. Yes. So we can calculate. Yes. The carbon footprint if we use the light, LED lighting.

00:25:20 Małgorzata Kotlińska
Thank you, Anna. Goran, are we starting discussions, or?

00:25:25 Goran Pavlić
Yeah, I think we can open the floor for questions or comments from the participants. There are many issues which resonate, I guess and I believe, with the different environments in different of course conditions. But some of the problems are general. So, I guess our colleagues can share, share or comment and mention better practices maybe, or worse practices, as it were. Until someone comes up with a question, I would like to pose a question regarding your pedagogical experience. You teach at the faculty. What is the attitude of the students towards these green issues or sustainability issues? Are they, like, very welcoming or are they just kind of forced to participate or to acknowledge the

importance of this? Is the situation rather optimistic or is the big way still ahead of you in order to kind of transform the students' attitudes towards these aspects?

00:26:33 Anna Wróblewska
I think the young people are our forward and informant ambassadors and they will change duality. Because I have the problem personally, I have the problem with, with my friends, with my colleagues. In my age, this is very difficult to change their habits, you know. And I think the young people are very open and over open minded. I'm not sure I understand your question, but I think we have to organize the lectures about green production in our school. Now. I think this all is only added. Yes, it is not. It isn't part of the official program, but only young people can do it.

00:27:38 Michalina Pruska

I can tell that it was on the one class with Mr. Chech on the third year of BA. We were learning about this, but just on the one class.

00:27:55 Anna Wróblewska

Yes, thank you. And it was rather similar to my presentation or not?

00:28:00 Michalina Pruska

Yes, it was, it was very similar. We learn about the basis and recommendations for these things which we can do. Like to make our event, like school production more green. But we also discussed this problem that for example, we cannot donate things to organizations, like the clothes or scenography, we cannot donate this because we need to show to the producers what we've done with this to the Polish Film Institute. If we have got finances from this. So we also discuss these problems. These are some problems in the institutions to be totally green.

00:28:50 Anna Wróblewska

Yes, yes, because the people in my age are interested, but young people are involved. The biggest difference, I think. Yes. What do you think, Michalina?

00:29:05 Michalina Pruska

Yes, I think that sometimes it's hard but I think it's nice that we start discussion on the. Like the first time met with this on this last year of bachelor's in our school. Yes. And I think that many people in our age have just private interest in these topics, trying to help. Like for example, on so many even school sets you can see now not plastic bottles, but like this Brita Duffy filters and people with their own bottle to even like small things like we trying to help. But of course it's like not easy on every part of film production to be green because sometimes it's even cheaper not to be green. So I think it's also a problem when you have got limited budget to trying and to like talking to crew: we need to be green in this case, but we can try and I think this is the case for us.

00:30:14 Goran Pavlić

Mladen raised the hand. Please go on.

00:30:18 Mladen Domazet

Thank you. I wanted to contribute to perhaps ask Anna, following the great introduction she's given us. There was another issue that wasn't the material side of productions, but there was perhaps a social side and that was the festivals. But it also applies to productions. Do you think that there is something to be gained in lowering the overall footprint of the industry by more cooperation and less competition? So for instance, festivals will take place in short time span at very different, very distant locations, each trying to be better than the others. So you're kind of forcing the participants and those who are presenting to kind of fly in between them. You want to use more materials to be more flashy, etc. Is there perhaps a potential for more cooperation and less competition as a cultural change in the film production?

00:31:17 Anna Wróblewska
Interesting question. Yeah, I don't know. I can see the difference between industrial program where I see that many people participate online and I like it. Yes, but I think sincerely, I'm not sure it is possible because of this place of meeting. We sincerely, we love to go to the film festival. Yes, we'll have to go to meet.

00:31:56 Mladen D0mazet
Absolutely you have to go. But maybe you can go to two right next to each other or two sharing a space. Rather than two, that one is a day after and a thousand kilometers away. Maybe they can plan to happen together or to share resources.

00:32:15 Anna Wróblewska
I don't know. I don't know. I would like to meet you personally at the Gdynia Festival.

00:32:27 Goran Pavlić
Philip raised his hand. Please go on.

00:32:34 Filip Kantor
Yes. Hi. So I actually have a question which is like open one for everyone if anyone knows because, well, I'm thinking I'm not a professional production manager or producer. I'm just a student and I can see that mainly the issue with the green film set is that we don't usually have the money to be green. It's easier to buy water bottles than managing all of the paper cups buying them all the time. New technology is more green but new technology is more expensive basically. So what I'm thinking is it makes sense if there will be any like government programs. Because that's just my student perspective. But I assume it's the same thing with the, with the big production. If you have budget of minus thousands of dollars and you are finding savings, you sometimes can afford to be green. So my question is: are there any government programs not even in Poland but around the Europe or around the world which are basically funding or refunding green initiative in the film industry? So in, let's say there will be like proof that, I mean the film production or film producer will have a proof that is more green (...) Yeah, being green basically on the work.

00:34:27 Anna Wróblewska

I have heard about, I have heard about agreement an agreement between regional film funds and I know that our two or three regional film funds participate in this agreement, Green agreement. I will check, one moment. I will write you and in the chat what is this? Yes, I've heard about this international regional Film funds agreement and it is one.

00:34:58 Michalina Pruska

And from this we can give, can they can give us like extra money to be green, to help our set to be green. From this institution which you know?

00:35:12 Anna Wróblewska

No, in Poland only from Lodz regional film fund and some facilities in Krakow. Regional film facilities, but I will write to you in the chat but I have to check it. Okay, but maybe somebody knows. I know, I know only about this one, this one regional film funds agreement.

00:35:49 Małgorzata Kotlińska

Yes, but there is the great discussion among these institutions and you are very well pointed that there is the need to support those initiatives, especially when we have the first movie for the young filmmakers, when the budget is lower. But it's not only the discussion about the first movie, but generally this is the discussion among all of the institutions in Europe what we are focused on it, how to support, how to gain some extra points to support such an initiative. Also the second one is also the discussion about the certification. Yes, because this might be a huge support when we will gain this certificate. And this certificate will give us something. And this is the discussion how it might influence the film distribution or for film promotion. Yes, and what else we might add? Anna, if you want.

00:37:19 Anna Wróblewska

I don't know.

00:37:21 Małgorzata Kotlińska

Okay, because you were muted.

00:37:23 Anna Wróblewska

I'm looking for this international agreement.

00:37:29 Małgorzata Kotlińska

Oh, it's okay, it's okay. Let's give others…

00:37:33 Anna Wróblewska

But I don't know any other international initiatives. Only this. This one. Yes.

00:37:44 Małgorzata Kotlińska

Okay, so maybe it's the time to go to the second presentation, to Mladen Domazet, we are very welcome that you are with us, but everyone if one wants to ask some other question, maybe we will have some time at the end, but right now let's give the floor to Mladen, the Growth Doughnut. Very interesting initiative. So, Mladen, the floor is yours.

00:38:22 Mladen Domazet

Thank you. Hello everyone. Let's see first if you can see the slides. Yes, you probably can. Thank you for inviting me. I'm happy to have an opportunity today to show you some of the work we're doing with Degrowth Doughnuts. My work is not in film production, as you can guess, so I won't be speaking on the actual footprint or impacts of production materially. I'm more interested in talking to you about ideas and this sort of immaterial cultural thing that comes from production. That's why visualizing and communicating just sustainability is the topic of what I want to show you today. A little bit about me. I wasn't aware, I'd forgotten how academic these Erasmus settings are, so my biography that I sent to Goran wasn't full of my education. I've completed physics and philosophy education in University of Oxford and continued into a doctorate in the same thing at the University of Zagreb. Why this is relevant? It looks like I'm very, very far away from the things both that you're doing and that I'm going to be talking to you about today.

But I hope that towards the end you will realize how it rests in this understanding and research I've done in explanation, especially in the discourses we use for explanation. I've gone on to work at various research fellowships, increasingly in the fields of sustainability and social justice in institutions in Europe. And in 2015 I cofounded the Institute for Political Ecology in Zagreb, because current academic institutions do not provide a space to work on the topics that we work on at the Institute and that we wanted to work on already 10 years ago, degrowth being one of those important topics. In the meantime, I've Contributed to the IPCC's reports on climate and I've also sat in and even contributed to UNFCC climate negotiations because at the time there was an opportunity to be a part of the EU delegation, etc. And then I've gained some of these academic titles since and have worked on two degrowth, organizing two Degrowth conferences, which is unique in at least the European setting. Most of the Degrowth conferences tended to take place in Europe, although not exclusively all. But the first one, after the big stop of physical meetings that the pandemic introduced, was then done in Zagreb. Again, what I work on today is illustrated by these two things. One is a big collaborative project towards an economy for sustainable well being. It is a big Horizon project funded by the EU with many universities from around Europe participating, where we are looking for this narrative of how to speak up a necessary radical transformation that we need to truly stay sustainable and not just reduce a few water bottles. And then I teach, when I get a chance, at institutions around the region here, and I have to say I'm very proud of the master thesis of Clara Salaveria Embid from the program in Sarajevo and Bologna that won,
I was her supervisor and she won the summa cum laude award of the program. And these UN global campus programs on exploring a topic that's not even in the news yet, and that's the lithium mining that's coming up in Bosnia and Herzegovina. You've all probably heard about the lithium mining in Serbia. I'll try and do a brief introduction on shifting perspective a little bit. I'm aware that we don't have much time and I want to move on to the solutions for communication, but let's set the scene a little bit, at least from the work I do of how the world looks or what the problem that we are talking about today looks like from a perhaps a transdisciplinary, more holistic perspective, if you want. It's the little bit of philosophy with pictures budding into the stuff that I'm going to show you today. One of the things is this projection from the Economist, not a very radically left publication that relies on the research paper to do this visualization of the projected change in suitability for human habitation in 2070. So just within our lifetime, certainly yours, perhaps less so mine in this century where we're expecting a warming, general global warming between two and two and a half degrees, which is guaranteed to hit by now, and

we're probably hitting more towards 3 degrees and more, where these deep red zones are not only less suitable to human habitations than they have ever been in human history, and remember, human history goes at least 200,000 years back, like the fact that we've been living and making houses and warming ourselves up and finding food and then growing food, et cetera. But in the deep red zones, this is totally outside the historical human niche. Now, that means that humans have never lived in such conditions as a species. Now that is a pretty horrible picture because that happens to hit the zones where about five times the population of Europe, even up to half of the global population today. So these people are going to have to go somewhere, and this is going to be an issue that we're going to talk about. But more interestingly, there are those zones at the edge of Europe as well. So when we often sit in Europe and say, oh, but this doesn't concern me, and it's somewhere across the Mediterranean and deep south, etc. There are zones in Europe that will themselves be affected by such climate change. We're also living in the world of great inequalities. You can probably cite various statistics about it. I am often most inspired to illustrate that by this work of Mladen Stilinovic, who's a late Croatian artist. It was called Nobody wants to see that the three richest men in the world own as much as 600 million of the poorest people. And now we can cite such a statistic. We can show a graph. But what Mladen shows with this piece of artwork is one tiny number three printed at the center of one of these large sheets. And then 200 million number threes representing three times 200 million, 600 million people, printed back to back on the remaining papers, not only on the wall, but all these papers on the palettes in the gallery space.

This is the size of the inequality. This is how much the three richest are supposed to be more worth, more valuable to the planet, more valuable to humanity than everyone else here. And that is something unusual, and that is something that should at least make you wonder if not, if not be absolutely opposed to it. Now, we've known that focusing on economic growth has, alongside the benefits that, especially in Eastern Europe and Southeastern Europe, we like to attribute to it and be happy with our increased size, and number of cars, has done to us. But it's also at least here's a graph. Since the 90s, I can show you many graphs. I promise this is the only graph as such that I'll be showing in today's presentation. But since the 90s, the rise of GDP has also been followed by the rise of material footprint. So we don't produce economic activity without stamping a footprint, without leaving an impact on the planet. And now we're possibly hitting the total planetary boundary, the total planetary limit of leaving those impacts. Now, how did we get to this GDP as a measure? And I usually can in a longer introduction of degrowth and various measures we could use to assess well being, something that we're working on, that project as well, would then do a longer introduction on what GDP is. Here's a brief one. GDP is an index. It's a measure. If you've chosen to do film school, you maybe hate economics and mathematics. So just think of it as a number that the economists calculate and like to track. And you will also know that all your politicians like to talk about it. In fact, they will probably condition any funding that you can get from public funds on the trend of movement or the size of this GDP. Well, it was originally introduced by Kuznets to reconcile demands of war and private consumption. So to sort of see how a state could shift its resources into fighting a war, a Second World War, and still maintain the bare necessities or the well being necessities of primate consumption. As I said, Simon Kuznets, a name to remember, was the one who devised it. But even he was already aware that such a measure, such a single number, this reduction of complex activity as society and economy are to a single number, measures both goods and also ills or bad together, ills coming as opposite from wealth. So it doesn't include. It also doesn't include the necessary informal economy. So for an economy to run, somebody has to clean the

houses, you have to stay healthy, you have to eat well, you have to share both information and materials through social networks. But that's not something that will be measured by GDP unless you're paying through public accounting, through issuing invoices for each of those activities. And if you remember, primarily it's the women in your lives, if you remember your mothers in your households, they certainly weren't issuing you invoices for all the cleaning they've done after you. Now, after Second World War, OECD focused on making the economic growth paradigm in order to replace the hollow idea of progress, especially as it rang hollow after Second World War because there was a lot of progress invoked in a lot of destruction that was preceding the war. But also it needed a technocratic idea of growth to compete with the Soviet intense public infrastructure expansion.

So something the west needed was its own measure of how well it's doing. Finally, as long as there was always more growth, the fortunes of both workers and owners could improve forever. So you didn't have to have this social discussion of how we are sharing the social product when we make something together, when we make something as a larger group, how much of the benefits of what we made goes to each one of us. And I'm pretty sure that you know these debates even on cultural production settings that are not so material. So what happened? Well, at least in the last 50 years we've had this drive for economic growth. We've been pushing it, especially with the fall of the Soviet bloc. It's kind of spread around the world as a, as a single global ideology of how we can all live better, how we can all be better off. But what's primarily happened is that we've been siphoning more of the benefits produced from that to the, to the richest 10% or 1%. And it's been accumulating at the top. And this is the difference to how much it's been rising across European countries. So today we need to really find a way to navigate through the eye of the needle or the needle between the planetary limits on one side which are saying stop now, you can't go on, all of you, as you have so far, and this need for improved life, for emancipation, for at least justice for everyone on the planet today. So here's a quote from Kohei Saito from his popular book on degrowth called Slow Down, that as capitalism antithesis, degrowth emphasizes forms of prosperity and quality of life that aren't necessarily reflected in this index of gdp, that it's a transition from quantity, which is measured by growth, into quality, etc. Anyway, worth a read if you can, if you're interested in more. Now, just to say this isn't a new idea, don't be so shocked by it. This has been all put into words, in fact, in political policy words already in 1974. So exactly 50 years ago, there was a Cocoyok declaration by the United Nations Environment Program which outlined both the science, the conceptual framework, how we should think about our relationship to each other and to nature, and the planning steps into how to achieve well being for all. It is only about 10 pages long. It uses very direct, very simple language. It was never adopted by the UN General Assembly. It was rejected as such, and we've been riding this roller coaster ever since to today's situation where if you want, you can read Andreas Malm's and Wim Carton's. Will Carton's book on overshoot, which is now this new popular, dominant idea where we say, okay, we're gonna just accept that we're going across the scientifically set limits, hoping that in this future, as we're kind of, so we're going across the cliff, but whilst we're just flying across the cliff, somebody might think of something that will pull us back and bring us back into the normal because we're not willing to stop ourselves before reaching the cliff. It's a good book to pick up on. And the reason they find that we're doing this is that investments that are poured into fossil fuels which are larger today than any investments we put into renewables, are basically such because they bring larger profits than renewables. Our culture is focused on producing profits. And as the culture by our leaders and by our support for the leaders,

we do things which will generate higher profits, even if we know scientifically that it leads to the detriment of us. We've organized a big conference in Zagreb on these issues. The Conference on Degrowth was opened by a speech by the vice chair of the IPCC. I hope you know, IPCC is the international organization of scientists that tends to collate to summarize various reports on the progression of climate change, but also its social impact, the vulnerabilities of different people, everything we research in this sphere and puts them in these combined reports that then also have summaries in order to have this kind of one voice speaking to the politicians.

But what we got from the media from such an event, even though there was an interview with the keynote speaker, with the vice chair of IPCC that was never publicized, the TV censored it. And what we got as media response instead kind of divides into these themes of: there was a conference in Zagreb that deals with barbarism, a non-civilized, non European world. And you will now see a lot of these tropes which in decent academic parlance, we don't use. So funny things like those who intend to implement deliberate degrowth don't stand the chance to. To be a part of the European milieu, whatever European milieu should be. Then there was these fears of depopulation and savage nature, a sort of Hobbesian state of nature, as if we'd only just yesterday escaped from eating raw meat and clawing at each other around caves. And then there's this shaming of European periphery and stagnation, as if it's solely the choice and not of the people living there and not a consequence of wider global structures and various material extractivist practices that flow between cores and peripheries. Then more tropes, more popular themes were that it's a gathering of the radical liberal left. Now that's a new concept coming from the US so that you're radically left, but radically liberal. Then of course, there was a danger of foreign conspiracy. This is all cooked up by evil foreigners who want to harm us. And then of course, the usual scare in Eastern Europe of communism rising when it's not at these levels of alarmist populist. The pushback from the media dealt with paternalist denialist themes. So usually it would be male scientists, senior white male scientists, calmly explaining that there is no reason for concern either by saying that capitalism is the historically normal pinnacle of development in civilization, so there's just no other way. We can't think of another way to do things, or that precautionary principles have historically been disproven, that in fact we have been speaking about hitting limits for 50 years. But they say, oh, but we've never actually ran out of one single thing, which was never really the story that limits was talking about. As you know, limits work in curves. So you hit the peak and then you start going down and going down. It doesn't happen instantaneously, but things become more and more expensive and harder to reach, which is why we're now willing to dig the tar sands of Alberta for oil, which we were certainly not willing to do in the 70s because it was stupidly too expensive and too polluting. But now the price of oil is. Has allowed us to find that to be economically viable. And then perhaps the softest approach is this polemic approach that wants to talk about these things, similar to what's given in this book by Daniel Susskind, which also you can read as a criticism of degrowth that says, sure, many things that come out of a drive a run after growth are bad, but we can work on making this growth greener and better. What it turns out, as attested by many reviewers and in the book itself, is that they then end up advocating for growth agnosticism, something that's popularly called agrowth by only one scientist who wants to push it. But. So it's got this different name, but it's basically degrowth by nature because it focuses on, okay, let's make plans on what we can do with the surplus we made rather than simply as it were, leave it to the market. So leave it to the strongest ones to obtain it for themselves. Situation today, I don't have more time to spend on this. So simply reporting on again another summary piece by. Well, it's a

signatory of 15,000 scientists, but the paper is authored by much less. The writers of the paper are a few dozen. And this is the Guardian's reporting on it that basically currently Earth's vital signs show that all of humanity's future is in the balance. That we're hitting this cliff that I was mentioning to you at the start. What can arts do? This may not be any of your business. Well, here's a bit of artwork from the Zagreb Diggers Conference that we were trying to sort of position all over the conference space to integrate rather than just hang on the side of an event, an intellectual event discussing these matters.

But here's a lesson also from Ursula Le Guin. Later she was receiving her National Book Foundation Awards where she said that hard times are coming when we'll be wanting the voices of writers who can see alternatives to how we live now, can see through our fear stricken society and its obsessive technologies to other ways of being and even imagine real grounds for hope. We'll need writers who can remember freedom poets and visionaries and realists of a larger reality. More importantly, what we always know from Ursula is this important quote that we live in capitalism and its power seems inescapable. But then so did the divine right of kings once upon a time, not only in Europe, but certainly in much of Eurasia as well. Any human power can be resisted and changed by human beings. And resistance and change often begin in art. That's my invitation to you to be willing to even consider these topics. Now onto communication. You want to break free out of this paralysis. Can you imagine a way out? What could we do at least in terms of visual communication? This is static visual because I'm not clever enough to do a moving visual. That is really your domain, guys. But at least maybe this bit of static visuals can inspire you. What we need is a different mental model. A mental model that would allow us to see how we could be within natural boundaries, but also satisfying our aspirations, aiming for our emancipations. And that is a mental at the moment we're stuck between a zero sum game that that's not possible. If I want to have a good life, I must destroy. I think perhaps you've been illustrating some of that in examples you were giving from the type of productions you see you have to work on.

Now, could we at least imagine things differently so that we could start building things differently? I'm here today to propose a mental model like that, a bit more scientificky, but I'll show you also how we use it even in institutions like the theaters of performing arts, live performing arts institutions. Certainly we have to start thinking in the difference between linear and circular. And there's a difference between a linear and circular economy. Again, this is a drawing, not a graph. But the linear economy takes something, transforms it, makes it, uses, and it basically keeps linearly decreasing its value until it becomes a waste that cannot be used anymore and must be put aside, or in the latest fashion of various Europeans, be burnt and put into the air. Now, a circular economy would envision this process in a way that goes through some of the steps where we're getting some good of it, we're getting consumption, but we can repair what we've used through consumption and find a way to return it back into the process rather than dump it as waste or burn it. So we need to start thinking in circles. At the moment, the world economy is certainly not circular. Its only circular element would be this. About 6% of everything that we put material into the world economy can be considered as processed and returned into it. You might say that this stuff that stays in stocks, a stock is a building or a road, something you built and then can be used over and over isn't an immediately consumable thing. You might say, that's a bit durable. Although start thinking about the insulation you have in many of the buildings we're using today, and you might start wondering about their durability under climate change. But most of it goes into domestic processed output and gets thrown away as waste. So it is a very large linear machine

around the world. Now, to start thinking in circles, we can start with creating images of either these concentric circles or spirals. So there's a lot of, like, long timelines, for instance, here that we can depict on a spiral. They allow us to see something that is very, very long in one eye blink to show comparisons. This is exactly, I think, the evolutionary tree of moving animals. So simpler to more complex. But as you can see, there's a lot of time passing and there's a lot of rise and fall of various species, but it gets wrapped up into a circular image. We can do these radial circular images comparing, for instance, how much impact certain things have. There's a few things listed here, but again, allowing us to see all of them in one go. So rather than having a linear graph listing these side by side, you can start listing them in a circle so that you can see that the size of this compares to the size of this, but also size of this. And this will be important for the images I'm showing you with the donuts. And then also, circles allow us to present networking graphs which kind of allow us to show a connection of multitude of things that we put on the circle's rim through the center and these intermediary stages in between. So that does lead us to here's, okay, I promised one graph, I've forgotten I had another one. Here's what we need to do again from Kohei Saito's book. This is the trend of rising GDP. This is what we would get by relative decoupling. And some of the energy and other material efficiencies that you've been talking about in this lecture and in these, in this course before would be going towards relative decoupling so that you get more with a lower footprint. And absolute decoupling would be that you're literally reducing your footprint while still raising the benefit. If you want, here it's listed as GDP. You can list it as a profit of what you're doing or the amount of claps you're getting. But what we really need is a very strong, sufficient, absolute decoupling, which we're nowhere near as hitting.

This is why we propose the degrowth donut. A circular image like this, which I will go through the details of explaining its structure to you, which would allow us to see where we're overstepping and where we're doing well both in attaining the inner rims and in not crossing the outer rims. I was going to put in a little bit of sciency theory, but I think for the end of today, you may be a bit tired of that, but if it was a science, we would be talking about the science of social metabolism, and these graphs would be trying to help us to visualize, would be a different type of science, not the one like statistical mechanics. Don't worry, statistical mechanics is just a mechanical science of bumps, a bit like clockworks. It would be more like a science of thermodynamics, which covers the same field, but doesn't talk about the elements of what it's composed of, but talks about the general laws under which we have to combine. Trust me, I've written a doctorate on it. It's a whole bunch of stuff that can be drawn upon. And then we could start with these planetary boundary graphs which are showing us how much only in the physical side we've already crossed. Now, these kind of principal sciences, like thermodynamics, can be a bridge towards a better theory, so towards a better understanding to escape the zero sum game of how we could have well being within planetary boundaries.

So remember, we get this from Einstein's principal theory of special relativity from 1905, where ether gets entirely cancelled. So there was something we believed exists out there. It was called ether. We were supposed to be moving through it. It was supposed to be carrying all our signals, even the electromagnetic waves, which allow me to transfer this from my room to each of your individual rooms. But we had to cancel the ether because we couldn't find evidence of it existing. And we had to make a different theory which allowed us to talk about, to verify the fact that you are seeing me, and not only through wires, but also through antenna and the air, but without the ether carrying it. Now, the visualizations. This is the process of building the donuts that started with planetary

boundaries graphs, which was this radar graph which tried to show several of these indicators and how much we've crossed the safe zone and gone into the red. Kate Raworth then devised a donut economics graph which tried to put these natural limits on the outer rim and social aspirations on the inner rim, saying, okay, we are crossing natural boundaries, but we're not doing it simply out of hubris. We're doing this to try and achieve certain goals. And how well are we doing on achieving those goals? And then at the team at the Institute for Political Ecology, it was an international and interdisciplinary team just before COVID, we worked on modifying this to allow to consider boundaries both in cultural and social spheres, as well as the aspirations in nature restoration spheres, because we are in the 21st century, reaching a stage where we have to start actively working on fixing nature, rather than just leaving it be or protecting it, because we are so much of an influence on the planet. So a degrowth donut would be this visual measure and which concepts would it include? Well, it would certainly talk about boundaries. So boundaries in climate change, boundaries in geochemical processes, but also boundaries in democratic ignorance and environmental concerns. We do have a boundary in societies that refuse to accept both the danger of climate change or collective action on it, in that if we want democratically to move towards taking steps on it, then we need to have a democratic majority supporting it. And that's considered a boundary, something we need to work on. If a majority of our population sees climate change as not happening despite rivers taking away their towns and fires burning their fields and villages. But likewise a degrowth. Donut would have inner thresholds as well. So it would have aspirations both to thriving communities, something that donut economics already promises in its visualization, but also seeking a dynamic balance with nature between. So you would want threshold in climate awareness, but also in the ability to shift transport modes, to change the different modes of transport to move to these festivals that Anna was mentioning in a way that is much less polluting than we're moving now by cheap flights, energy transition for the entire system, continued education for change, etc.

So there are aspirations that as a society we want to achieve. So a degree of doughnut provides a mental model or a conceptual tool, a way to start thinking about more than one dimension. GDP was forcing us to think in one dimension. We will distill all our activity to this one number, and then by tracking this one number, we'll know whether we are doing well or badly. A digger of donut would have a structure that is recognizable to people by three segments. So a cultural segment where we're talking about popular attitudes, but also popular states. So for instance, average well being, the reported state of health in society, etc. Socioeconomic segment, where we would be talking about elements of economy and material throughput in societies, and then this biophysical segment where we would be talking about the imprint on the world that we are living by our tiny little activities, all our individual activities adding up, and also on the goals we want to set for nature restoration, so that the entire planetary biosphere would not hit that cliff we were talking about earlier. It would help us to visualize sustainability by saying, okay, on this number of different concepts and indicators, we need to start measuring things so that their values do not go into these red wedges, either outside or inside, but that we can pull them all. Like some of these values that we already have, we can pull them within the green inner ring. And that way we can talk about some things where we are doing well already. So, for instance, on this visualization you can say energy per capita, energy use per capita, in this, I think it's a country, I think this was an example of Croatia, is good, so there's no need to reduce it. And degrowth isn't only about reductions, but for instance, corruption perception in the country is very bad. And we need to start working on the idea that people need to find a way to trust the society more, because with this level of

corruption perception, we're not going to get a community to work together because they're not going to trust that if I do my bit, you're going to do your bit.

Okay, so one of the ways is to create these donuts for nations. That's the easiest. There's a lot of statistics collected for nations. We use them, for instance, to make resilience assessments of different countries in the resilience to the pandemic, but also to consider the roots of that resilience. So the point being that you can compare countries and see where they are doing well or badly. And generally what you get here is that this is the country with a good Covid response, so you would focus on whether perhaps it's paying for that with these very bad overshooting indicators. This is the country with the worst Covid response in the sample and it differs in having this segment, this cultural segment, very strongly accentuated. You can also make assessments of performances of single countries. Here's an example of Hungary, another paper we've done comparing this donut assessment of Hungary with Hungary's National low carbon strategy, where we tried to point out that the strategy is basically hiding many of the problems and focusing on too narrow a ban. So this is a country with serious climate change and biodiversity loss drivers. So there's all these problems with intensive agriculture, a lot of carbon emissions, etc. But its own energy and material throughput are not so bad. In fact, they per capita fall in the sustainable range. And its popular environmentalism is not so bad. So it doesn't have a population that, according to international surveys that we follow, is largely opposed to believing and acting on climate change. However, it does have a population that has a low social trust. It has a big distrust of its democratic institutions and huge corruption perceptions. Also low life satisfaction. So there's a question of how could this population gather strength to go and act on these matters. And this is precisely what the strategy that was put forth doesn't address, but tries to kind of ignore these and put a few easy measures that don't have to deal with this collective trust action.

You can focus on cities. We've done analysis for the city of Pula, for example, where again, you can see that in the cultural segment there's no problems and we can't have this constant claim our people will not do this. Our people, these people are concerned about the matters, they're seeing problems on TV. It's more a matter of whether they can find agents to lead them through the transformation that they can trust. But certainly as a tourist city, it does have all these other large footprints which are attributed to its economy, even if not necessarily made by its very residents.

Most interestingly, we've applied this to the Croatian National Theatre in Zagreb through a project “Stages” where there was this whole issue of trying to measure impacts of visual arts, performing arts productions and performing arts institutions, especially old Austro-Hungarian institutions with terrible insulation, such as this typical building of late 19th century theater in Zagreb is. So you might want to measure things. If you're considering a theater, you obviously are not going to measure climate emissions directly because you don't know what carbon emissions exactly of a theater are. But you can make proxy measurements. But you also want to measure things like climate change nonchalance or lack of care about climate change among its employees. So whether this workers collective is actually disinterested and doesn't care about its impact. Anthropogenic climate change awareness. So whether people are aware that climate change is happening globally, whether they are dismissive of renewable energy so therefore not willing to introduce it, etc. But then there are social measures like gender equality. Is this a collective where you can actually have an equal voice based on gender? Does that then contribute to different practices? Also education for workplace sustainability, but also the

state of precarious work? If I'm employed here only very briefly, I don't really care much about what happens to the institution in 50 years time. And it's not really my concern to lead on its environmental impact. What we get then is this kind of profile for the National Theatre in Zagreb I want to show you. So this is the profile for the National Theater in Zagreb. Generally similar zones, culture, nature and society at the bottom. Nature big problem in Zagreb. Much bigger than state of Croatia or even bigger than the City of Zagreb. On average, of course, not identical measures, but in these spheres, but again, both in the city of Zagreb and among the employees of Zagreb National Theater, it's not the opposition to action on climate change. It's not the opposition to even believing in climate change that is the problem. On national level in Croatia it might be more so, but certainly the theater in Zagreb is similar to the general average population of the city of Zagreb, where concern and awareness exists. So therefore we're looking for instruments next on how to act on it.

That would be the example of how you do it. I'm not going to go into much more detail, but this is presentation of what you want to do with a visualizing tool like that. If you wanted to know more about all of these topics, I can suggest various formats. One is obviously in books. I like books. This is all by Kim Stanley Robinson, rather famous science fiction author. But don't worry, it's not a science fiction saga of space sagas like the Dune, there's no empires, there's no spaceships. In this brief selection of four books, I think Kim touches upon many of the issues that we touched upon today. Most notably on degrowth in the Ministry for the Future, his latest book, but also on techno optimism and the ideas of Tech Bros. On replacing various nature services by technology in Aurora. Or perhaps on the very origins of our cultural traits and also imagining our existence prior the human existence, prior to the last several hundred years where we see them all as red in tooth and claw, even though all our anthropological evidence points to the fact that they loved and created and debated and had to deal with many social issues as well. This is a sort of a science fiction projection into the past in the Shaman book. Online you can find podcasts say on the BBC seven Deadly Psychologies and Fire Weather. We'll talk about both psychological basis for some of our current ideological trends and also on the development of climate change knowledge and then most notably in Fire Weather on the active obstruction performed by some of those in power to act on climate change for more than my lifetime. I advise also seeing Greta Thunberg's 7 minutes speech, but not on the right wing media where it's cut down to one minute where she I think explains or explained very very well what the problem was at that UN assembly. She put a lot of the simple good facts in this one simple speech. Or you can find things like Degrowth Explained custom made videos on explaining these topics. For a longer thing in your field of work, I can recommend documentary film on degrowth and climate crisis called Fairytales of Growth. It's freely available on YouTube and it's made by Institute's junior research fellow Pierre Smith Karner.
So we want quantifications beyond GDP. We need to think of both boundaries and thresholds. So some things are limiting us, some things we need to keep expanding. That's emancipation, the search for good life. There are principal and constructive ways to approach it. That's the bit we've really swept under the carpet in today's presentation. But that's the hard science I normally do in my professional work I advise using the donut or thinking in terms of a mental model of a donut. But donut, that's focused on degrowth. There are those that are not. We need to think of the right themes and indicators and we need participative processes to pick them. So this isn't something that only a handful of experts can do. We need to go to broader groups of people and talk about what we want to involve here. And then we need to do an analysis of the situation from an entirely

different paradigm. Thank you very much. I'm aware that I've slightly slid over time, so I'm happy to take any questions and comments from you and thank you very much for your patience and bearing with me. Thanks.

01:20:26 Goran Pavlić

Thank you, Mladen. It was a great presentation. Very informative one, very constructive and partly very, actually, yeah, provocative and kind of challenging towards our some of the most salient convictions about the possibility of change and similar. So are there any questions? We have just a few minutes, but we do have time for questions or comments. We just see clapping.

01:20:55 Filip Kantor

Well, I have one question.

01:20:58 Goran Pavlić

Yes, Filip, go on.

01:21:01 Filip Kantor

Hi. My question is how would you educate, like, older people that are not still in school on those subjects? Because that's the main thing I'm wondering about, how to, like, explain those things to the public.

01:21:20 Mladen Domazet

And you're afraid of those older people who vote Conservative and won't be convinced that anything important is changing? Well, one thing is you can keep making them wonderful documentaries by David Attenborough. And you know that David Attenborough is only a face, and most of the work is done by guys like you. So keep showing them both the beauty of nature and then the death of nature, because they've been trained to take nature for granted in their lives. It was usually out there, very strong and very sturdy. And in the meantime, we've managed to bring it to its knees, but also through information programs, namely on TV, which don't feature one denialist and one advocate, but which are more realistic about presenting both the truth in the academic sciences and also well in academia and in research. So for decades now, we've been fighting, especially in Eastern Europe, this trend of when we talk about climate change, then we will bring one foggy old man, and there's only one in Croatia, but he features everywhere. And you would bring him, and then you would bring somebody who's trying to warn about climate change and present it as a 50:50 debate between. And usually the old foggy would be using the old foggy kind of, how dare you speak to me like that? I'm an esteemed old professor and I want you to address me this way and blah, blah. But that's an unfair way to set things up, because 97% of scientists working in the domain do not doubt the anthropogenic driving of climate change. And therefore this guy brought to represent the supposed 50% is an entire fake which is created by editors of the program. I mean, he's going to speak his idea obviously, but when we start to present. So all our information programs, which are largely viewed by older people, need to be much more realistic about attributing. We now have the science of attributing blame about climate change events. So next time your town floods, people get killed and houses get washed away, you can usually find research within very short time afterwards, very being up to a year afterwards, that can attribute as to how much of that particular weather event was contributed to by particular actors that drive climate change.

And this should be said, these fingers should be pointed and these people should be called to accountability. This is what's happening globally in the COP meetings and you may have heard about it as a loss and damage fund or various reparation requests and it's being suppressed and not presented clearly. It's presented in our news media here as those in the south want something we poor Eastern Europeans should now be made to contribute to paying for the Nauru people who are going to sink underwater. What's it got to do with us? Well, there's exactly a calculation of how much historic emissions we've emitted, how much we're still emitting to gain our benefits. And there's also the fact that we can attribute the sea rise, which is going to wipe Nauru off the face of the Earth, exactly to the anthropogenic climate change driving it. And there's a global negotiation to try and settle as to how we can both pay and also provide livelihood, that is resettle Nauru people somewhere. But you won't see that in the news around here and you might not consider it as something worthy of discussion. Also, when we're discussing those people, we should try and tell them that people who are migrating through our areas that they tend to be terrified of. My 94 year old grandfather keeps being afraid of the story of migrants breaking into his house and smearing excrement over his walls. Even though I try to tell him that the story is fake and that I can see no reason why somebody would walk across the Sahara only to try and smear excrement over his walls. And there's much more important things for them to do. But also these people are driven to this migration, as was said in the 2015 Paris Conference by the leaders of states from there precisely by the climate changes destroying their livelihoods where they are now. And again, these older people you refer to might not be told the story in such a way.

01:25:30 Goran Pavlić

Great. I'm afraid we ran out of time. If there are just some short comments or closing remarks, we may welcome that or else.

01:25:42 Filip Kantor

I just want to ask if there will be, if you can share that presentation, because there were so many donuts that I couldn't keep track of everything. But it was very, very interesting and I would like to get some research on it and just read about it. And if you can share it, that would be amazing.

01:26:02 Mladen Domazet

I will, thank you very much. You can find out more at the website of the Institute for Political Ecology. There's an even interactive console where you can make your own donuts there already. But I will make this into a PDF. I just have to ask you not to share it widely, because I haven't got time to make attributions of every image I've stolen off the Internet to put into a funny presentation for you guys. But it would be fair to give proper referencing and justification to all those creators. So if we're going to use it, use it internally at the project, but don't consider it publication. But you can find out most of the stuff at the Institute of Political Ecology's website.

01:26:42 Goran Pavlić

Malgosia already put the link in the chatbox, so you can actually see it there.

01:26:48 Filip Kantor

Okay, thank you very much.

01:26:50 Goran Pavlić

Okay, thank you everyone and thank you for being here hearing our today's presentation. This was the last one in this year's series. We're continuing with our Green Screen Lectures in the spring, somewhere during the March, and we'll invite you in a proper time to the next series of engagement. Okay, so this was it.

01:27:15 Mladen Domazet

Thank you.

01:27:16 Małgorzata Kotlińska

And thank you, Anna, for the great, interesting, interesting presentation. And I hope that we all have lots of reflection. Thank you. So thank you very much. Thank you, Goran.

01:27:34 Goran Pavlić

Okay, thank you. See you. Bye. Thank you.
Bye. Bye. Thank you very much. Thanks.