

# Lights, Camera, Inaction: Where is Climate's Starring Role?

<https://www.climateone.org/audio/lights-camera-inaction-where-climate%E2%80%99s-starring-role>

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**Greg Dalton:** This is Climate One. I'm Greg Dalton.

**Ariana Brocious:** And I'm Ariana Brocious.

**Greg Dalton:** Climate disruption is a bigger and bigger part of our lives, and yet there's one place it still doesn't show up much: scripted entertainment on TV and film.

**Ariana Brocious:** Hollywood has been slow to include climate in its stories, whether as a central focus or background element. Maybe because it's too overwhelming, or depressing, or it makes us feel guilty.

**Scott Z. Burns:** We have been taught to believe that this problem is way too big to change. We've also been taught that all of the solves likely are the denial of our appetites.

**Greg Dalton:** That's Scott Z. Burns, the writer and director behind Extrapolations, a series on AppleTV+ that revolves entirely around the climate crisis. But his show is a rarity.

**Ariana Brocious:** And while, in truth, I find Extrapolations hard to watch because it feels SO accurate and scary, this matters because like so many other aspects of our culture, what we see on TV and in movies has tremendous power to shape how we think about an issue. Think about how much Will and Grace helped increase acceptance of LGBTQ people.

**Greg Dalton:** Will and Jack's kiss was a breakthrough moment for a lot of people. In climate, Al Gore's 2006 film, An Inconvenient Truth, awakened and activated a generation of people, including me.

**Ariana Brocious:** And since then many excellent documentaries have portrayed how burning fossil fuels disrupts food production and is driving more severe fires, floods and droughts. But there aren't many narrative features that give climate and energy more than a passing reference.

**Greg Dalton:** So true. My daughter's high school class is studying climate and they watched *The Day After Tomorrow*, which was released in 2004. It's telling that the teacher - whose son is an IPCC author - is showing a film made before the students were born. There haven't been many climate-centered feature films since.

**Ariana Brocious:** Anna Jane Joyner is working to change that.

**Anna Jane Joyner:** We're just asking people to write about what it feels like to be human right now and to be honest about depicting in your story worlds the world that we live in.

**Ariana Brocious:** She's founder and director of Good Energy, a nonprofit story consultancy for the age of climate change. Her group released a report in collaboration with the USC Norman Lear Center that analyzed the frequency of climate keywords in more than 37,000 TV and movie scripts from 2016 to 2020. And they found that climate hardly ever shows up.

**Greg Dalton:** In a related audience survey, they found that only a quarter of respondents come across the climate crisis in scripted entertainment, and most depictions are negative.

**Ariana Brocious:** So I asked Anna Jane Joyner why climate isn't a more prominent theme in TV and film.

**Anna Jane Joyner:** Yeah, I mean, I think there's a lot of reasons. I would say the biggest one is that there's not a lot of precedent, and when you're a writer, you're always looking, for inspiration to, to what came before you as far as, you know, the content that you're, you're focusing on. But there's also other reasons. We do a lot of qualitative research, so we've talked to hundreds of television film writers at this point to identify what those hurdles are and what they need for support. Prior to 2019 when we started piloting Good Energy, there really wasn't any dedicated programming in the television film industry to support television, film writers in portraying climate change on screen. And, you know, that's a pretty big oversight on behalf of the climate movement because, you know, the Department of Defense has had people in Hollywood supporting writers for almost a century. The CIA has had people in Hollywood, the fossil fuel industry has had people in Hollywood - they financed a film in 1948, and they've been here ever since. And a lot of other social impact, organizations like Color of Change does amazing work on racial justice and storytelling in the industry. Define American does incredible work on immigration storylines. Illuminative does really incredible work on Indigenous storylines and representation, and there was nothing like that for climate. And so there wasn't a support system. There's not a lot of creative references for how to bring climate into your story. And I think the other big piece is, you know, prior to the last five years, people just weren't paying attention. Like, you know, it's the same as the rest of the country. It's only been within the past five years where people started to really grapple with climate change and worry about it and experience it.

**Ariana Brocious:** I'm curious to know if among those factors, just the science literacy behind climate, if that's an obstacle for some writers or studio executives who sort of aren't sure if they understand it enough to maybe to write about it or to produce a movie about it.

**Anna Jane Joyner:** Yeah, I mean certainly I think the way that climate has traditionally been talked about in journalism has been very scientific and, and kind of policy or technically oriented. And we definitely found with the writers that the research factor was intimidating. Like even if they really

cared about climate, you know, and I did kind of a couple of Google searches, putting myself in the position of writers and what it would feel like to do this research if I didn't have a huge background in climate change.

And even going to the NASA website, you know, the climate information there is pretty dense and, and technical and scientific and hard to access if you're a lay person. And that's true with a lot of the communication from mainstream climate organizations. It's changing, but it's, you know, still kind of prevalent. Writers need research support, especially TV writers, because they're pumping out episodes really, really quickly and they don't have time to spend hours and hours and hours researching the minute scientific details or policy details. So that's something we really try to, you know, we have a range of services to support writers, but certainly kind of doing the research for them and really giving it to them on a silver platter is a big part of that. And, I would say along with that, like we were very intentional when we wrote our playbook for screenwriting in the age of climate change. One to work with screenwriters. So my two of my co-authors are screenwriters, but also to make sure that we were translating all of the information into a language that creatives found accessible and inspiring. And then also, including the facts, but also including character inspirations and creative prompts, and really helping to imagine how this can show up in story in a way that is entertaining and artful.

**Ariana Brocious:** When climate is incorporated in scripted entertainment, it can be done in a few different ways. Sometimes it's just background behavior, like a character driving an EV or maybe adopting a vegetarian diet. It can be a subplot or it can be like the central focus as we've seen in *The Day After Tomorrow* or recently, Apple TV's *Extrapolations*. What have you seen recently with how writers and directors are navigating these various ways of bringing climate into their shows?

**Anna Jane Joyner:** Yeah, I mean, *Extrapolations* is, you know, a historic moment for the industry and the climate movement. It's the first scripted television show where climate is a central character in the story and a big part of the driver of the plot and the character's lives. So that's super exciting. And then of course, *Don't Look Up*. They did actually mention climate change, a couple of passing, but this story is really a metaphor, but that was really wonderful for us because it showed how you could write about climate in a comedic way, but also that it can make an enormous amount of money. You know, like that was one of the best performing films in Netflix history. And so, we absolutely need more of those stories where like, climate is the central focus, but also we just need more stories where it's acknowledged. You know, like the way that we talk about it is we're, we're just asking people to write about what it feels like to be human right now and to be honest about depicting in your story world's the world that we live in. And so any story across any genre, if it's taking place in modern times or in the future, on this earth, so not talking about fantasy or historicals, but any modern story, climate change is a part of that story and what we help writers do is to uncover how that authentically shows up for their, for their characters. And the same way that if they were real people out in the world, they would be authentically encountering climate change. So, yeah, we, we really, we talk about it as a spectrum. So we have climate placement, which is really that background, you know, taking single used plastic off screen, showing EVs, having characters lean into a vegetarian diet, but something that isn't necessarily talked about. And then we have it, you know, coming up in dialogue where it's just kind of in passing, but it's very clear that the characters are thinking about it and, and signaling to the audience that them thinking about it is valid and okay. And so that's really important just for normalizing discussions of climate change and real life. And also making audiences feel less alone, you know, in their own experience and, and concerns. And then we have kind of, when it shows up in the world story, and it's certainly a player that impacts the plot in the character development, but it's not the focal point of the story. So a good example of that would be *Glass Onion*. And then we have the *Extrapolations* of the world, uh, where it really is the primary focus of the, of the story, and we need, we need climate acknowledged across

all of those.

**Ariana Brocious:** The movie, *How to Blow Up a Pipeline* recently opened in theaters. It features a group of eight characters, all with different motivations who come together to strike a blow at the oil industry. It plays like a heist movie where the heroes are what some might call terrorists, or eco terrorists. Let's listen to a bit of the trailer.

So without giving too much away, what did you think of the portrayals of these activists in *How to Blow up a Pipeline*?

**Anna Jane Joyner:** I mean, just from an objective point of view, like not talking about the climate themes, it is an amazing film. Like it is just such an example about how you can tell a truly entertaining and artful story through the meeting medium of film that is gripping, you know, and, and that includes climate as a central part of the focus. I also just was blown away by the character development. You know, it's a big ensemble cast, which I really love because we do need to be showing more collective action and not just individual heroes. But you really get attached to these characters. You know, you, you empathize with their stories. And even though, you know, some people might consider them terrorists, you hear where they're coming from. In many ways, if you care about climate change, you can identify with their reasoning. And that is just such a feat of storytelling and the fact that the main writer and the star is 24 years old just blows me away, no pun intended. And also, I think is just a prophetic example of the way that climate stories will be told as Gen Z becomes more and more prevalent, filmmakers, because it really channels the rage that a lot of young people feel right now. And I also loved the characters cuz they were deeply flawed and I think, um, it's really unhelpful to only have people who care about climate change or are working on climate change who are superheroes. Like we, we need to be able to identify with the characters and every single person I know in the climate space is flawed. You know, every human is flawed.

**Ariana Brocious:** And it has received, the movie has received some criticism from the right. But I'm curious what you think of the villain of the story being the oil industry, though no oil industry executives are shown in the film.

**Anna Jane Joyner:** I am all for it. You know, in our research with USC Media Impact Project, it showed that, uh, climate change or anything related to it, showed up 2.8% of the time in scripted television and film, which is obviously so, so low. And also just like not an honest reflection of the world that we're living in anymore. In the rare occasions that it does show up, oftentimes, you know, it's, it's in the form of shaming or guilt-tripping people about their personal behavioral choices. So shaming someone over their SUV or their plastic straw, or not recycling, and that just like shuts you down, you know, like shame and guilt is an intentional strategy of the fossil fuel industry to move the onus of a responsibility from the fossil fuel industry to the individual and that even the carbon footprint print was popularized by bp. And, and so I think stories that really show the responsible parties, which is the fossil fuel industry, it is not our fault that we were born into an economic system that is shackled to fossil fuels. That was done to us. And, and so I'm all for more stories that just overtly call that out.

**Ariana Brocious:** So when climate is featured as the main theme of a story, oftentimes the storytelling is dark. Extrapolations fits into this space, and the overtone of the show is that we are losing everything. Some people say that show misses an opportunity to show characters advancing solutions and demonstrating how much agency individuals can have. So I'm curious what you think about that critique.

**Anna Jane Joyner:** I would push back on that critique as I'm sure Scott Z. Burns would and, and Dorothy Fortenberry. Because it really, it isn't showing the worst case scenario. that show shows the



world that we are headed towards. Right now if we do not make major changes, The first three episodes are, you know, are set in 2037, the first one, and then the next two are in 2046 and 2047. Those climate impacts are pretty baked in. You know, like that really is the world that we will, in all likelihood be experiencing, even if we ended all fossil fuels tomorrow. After that it kind of divides and that's where it really heads more in the 2.5 degree to three degree Celsius trajectory versus what we all hope it being closer to 1.5 degrees. So I, I don't think everyone realizes that. You know, like it is dark. The world that we're headed towards is scary. There's no way of getting around that we're already living it. And inevitably it will get worse, um, before it gets better. Fingers crossed. And what they were, what they were trying to showcase was how do we be human in this world? You know, like, how do we. How do humans continue loving and, and you know, fighting and living and. And I think that that's really important. They describe it as really exploring what it means to be human in the messy middle. But you know, I think, I think the reason that people may be pushed back on some of the climate stories right now that are darker is because we just don't have a big enough menu of stories. I don't think that it's inherently bad to tell those kinds of stories.

**Ariana Brocious:** It confronts people with stuff we would rather not face too. I mean, frankly, it's hard to watch some of the Extrapolations show because it is, it does feel accurate and in scarily, so like, I don't wanna imagine that future, you know?

**Anna Jane Joyner:** Yeah, no, I, I think it's, you know, it's, it's hard, but we live in hard times. There's still beautiful times. There's still lots of hope, there's still lots of action and agency that we have control over, but it's not, You know, climate change is not an easy subject matter.

**Ariana Brocious:** Yeah. One aspect of the good energy report was the care that was taken to have voices from diverse backgrounds in the responses to survey questions. And this is important because diverse points of view, offer more well-rounded analysis. But what about the people bringing these climate stories to screen, and how do you think increasing the diversity of people telling climate stories would affect the kinds of stories that we see? The stories that are told?

**Anna Jane Joyner:** I mean, it's absolutely critical. I think that doesn't just apply to climate related stories. It applies to every kind of story, like most industries Hollywood is disproportionately white and male. And we need more fem-identifying storytellers. We certainly need more BIPOC storytellers. We need more LGBTQ storytellers. So all of those perspectives not only are just the right thing to do, like ethically speaking, but also they make the stories themselves better, you know, which actually the Blacklist has shown. They've done a lot of research on BIPOC scripts and television and film, uh, stories and, and they make a lot of money. And that's because bringing diverse voices and stories to the table, you just end up with a broader array of creativity. And certainly I think that's true for climate storytelling because it's, you can't really wrestle with climate, honestly, without talking about the fact that yes, it's a universal experience that affects everyone from the, the wealthiest to the poorest across, you know, you know, races and genders, but it's definitely affects some people much worse and, and first, and those people should be at the forefront of telling these stories.

**Ariana Brocious:** You mentioned that Good Energy has put together a playbook that helps writers include climate in their stories, and the playbook says, "including climate in your work doesn't mean being didactic, boring, or forced. It doesn't have to mean conjuring shame or doom." Can you tell us a bit more about what's in the playbook and why it was important to create it?

**Anna Jane Joyner:** Yeah, I mean, it was important to create it because there was no climate resources aimed at screenwriters or, and very few aimed at storytellers in general. And so, we really wanted to take all of this climate information. And inspiration and translate it for this audience in a way that felt inviting and inspiring and exciting and, and creative. And so, I very intentionally built

my team of both screenwriters and climate experts because we, we need both of those expertise to do this right. And so what we have kind of like the, the information you would expect. Climate 101, Dr. Kate Marvel, co wrote with that, with us. Dr. Peter Kalmus helped break out down the latest IPCC report. Uh, we have a section on solutions. We definitely have a section on, on intersections and intersectional justice. But we also have a great deal of inspiration. So showing a wide diversity of, of real life climate characters, you know, people like Reverend Yearwood and, um, you know, Fabiano Rodriguez and, and just really compelling diverse climate voices who have fascinating stories, you know, and we, and we intentionally chose to depict, climate leaders who were comfortable being vulnerable and honest about their own flaws. And because that is what makes for a great character. And then we also did a lot of fictional, um, character inspirations because, you know, we didn't wanna ask youth climate activists to tell us their dark secrets.

**Ariana Brocious:** Since you've started good energy, how have you seen climate storytelling change?

**Anna Jane Joyner:** It has been a sea change in the industry itself. And there's so much appetite and, and literacy, like people actually know what we're talking about now. Um, there's one network and one streamer who has in-house positions focused on climate content. That was absolutely unthinkable even just four years ago. So seeing this movement grow to support creators in the industry has. It's been like, almost like disorienting in, its, in its success. It's still like dramatically underfunded. Like we are overwhelmed with demand and opportunity. and we're not able to answer it at the rate that I would really like to. Also because like, because storytelling is very referential, the stories that come back come out in the next. Three to five years will have an outsize impact on all the stories that come after that. So yeah, the, the industry appetite and demand has. Is overwhelming in a, in a really good way. Um, and just a total change from when we first started piloting good energy in 2019. So I think we're headed in the right direction, but we still have a lot of work to do to support this industry.

**Ariana Brocious:** Anna Jane Joiner is a climate story consultant and the founder and director of Good Energy. Anna Jane, thank you so much for joining us on Climate One.

**Anna Jane Joyner:** Yes. Thank you for having me.

**Greg Dalton:** You're listening to a Climate One conversation about climate storytelling in TV and film. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. You can also help by sending a link to this episode to a friend. By sharing you can help people have their own deeper climate conversations.

Coming up, making the worlds of TV and film reflect the reality of our changing world:

**Scott Z. Burns:** The shows that start coming down the pike at us in 5, 10 years that don't take into account climate change... those are science fiction shows, okay? Not ours.

**Greg Dalton:** That's up next, when Climate One continues.

**Greg Dalton:** This is Climate One. I'm Greg Dalton. Apple TV+ recently released the series Extrapolations, exploring the future consequences of the climate crisis. It features a star-studded cast including Meryl Streep, Daveed Diggs, Edward Norton, Jr., Kerri Russell and others. It conveys a dystopian future that science says is possible though not inevitable. We still have time to create a future we want. And a quick heads up to listeners: If you haven't seen the show, there are some spoilers ahead.

Scott Z. Burns wrote, produced and directed *Extrapolations*. He also worked on the films *Contagion* and Al Gore's *An Inconvenient Truth*. He was working in advertising in 1989, when the oil tanker Exxon Valdez ran aground in Prince William Sound, Alaska, spilling 11 million gallons of oil - creating an enormous environmental disaster. Scott Burns went to work as an oil spill volunteer and later quit his job. I asked how that experience set him on the path to directing *Extrapolations*.

**Scott Z. Burns:** When I went, I thought I was going for just a week or two to volunteer. When I got up there, I realized there was a whole lot going on, not just with the oil spill but with the larger issue of how society deals with Indigenous populations and oil producers and PR and so many things. And I got back and it felt like there were more important things for me to be doing than writing beer commercials. Not that there's anything wrong with writing a beer commercial. I just was more passionate about other things. And it wasn't too long after that when I met Dennis Hayes, who had worked with Senator Gaylord Nelson on the first Earth Day. And Dennis said, you know, you don't have to go work at a phone bank. You could use the skills you already have and think about how to apply them to making change. And so, at that point in my life I had worked in advertising for a while. But as time went on, I really wanted the focus of my work to be entertainment. And whenever I could, I wanted to tell stories that I felt were impactful. You know, the stories that I had seen growing up that made me want to affect change, whether it was *Serpico* and learning about corruption in New York City, *One Flew Over the Cuckoo's Nest* and learning about, you know, mental illness. I loved those movies and I loved how I felt sitting there. And I wanted to do that with my life.

**Greg Dalton:** Thanks for sharing that story. I also went to Alaska and it changed my life in a way I didn't expect when I went up there. Time horizons are a central theme in climate conversations. When you were, just a little bit after that, producer on Al Gore's, *An Inconvenient Truth*, a lot of the talk was about 2100, end of the century. Then it moved to this decisive decade, and we had a couple of decisive decades now. Knowing that, why did you set *Extrapolations* decades into the future?

**Scott Z. Burns:** Well, you're exactly right. One of the things about *An Inconvenient Truth* that became apparent to me and Davis Guggenheim in the years afterwards was that in 2004 it was so easy to talk about what we needed to accomplish this century, even though there were people like James Hansen saying we had 10 years. And so, you know, when I started writing *Extrapolations* a few years ago I wanted to put it sort of as far in the future as *An Inconvenient Truth* was in my personal past. But more importantly, I became very interested in this idea of everybody has a different event horizon for climate change, or for any issue in their life. And I wanted to be cognizant of that. I didn't want to go into a version of the future where there were flying cars and other very extreme things because I think it's easy for the audience to push that away and go, well, that's a different world, that's not my planet. I wanted to make something that was undeniably coming at us. And so, we chose in our pilot, you know, fires and ice sheets melting and things that are already in the news. Because I didn't want people to be able to distance it. And I wanted to make it as far-flung as possible because climate change doesn't look the same everywhere. In some places it's a drought, in some places it's a flood. In a lot of places it's a forest fire. and so I wanted to be able to, move around the globe and show people how those changes were gonna affect life on earth.

**Greg Dalton:** And last year's film, *Don't Look Up*, used the immediacy of a rapidly approaching comet threatening to destroy life on earth as an allegory for climate change. What did you think of that device as a way of getting audiences to recognize the immediacy and the directness of climate coming at us?

**Scott Z. Burns:** I should preface this by saying I'm a big Adam McKay fan and I'm friendly with him and I love what the guy is about. And he keeps us laughing and learning, and that is an incredible feat. You know, that movie I think did a great job of using a metaphor for lack of a better word for a

meteor. I guess it's a metaphor to sort of stand in for climate change, although it can actually be standing in for almost anything in someone's life that they refuse to recognize has an impact. I loved what he did in that movie because of its look at human inaction. And there are other movies and literature and things that take on the end of the world, you know, because as any kind of dramatist you want to see, where does this go? What's the logical end of climate change? And I wasn't that interested in the logical end. I was interested in something far more immediate, like what Dorothy Fortenberry, who I worked with on the show, and I call the messy middle, you know, sort of the second act of climate change, which is how do we live through this? Because long before anyone, you know, before we'll all die from it, we'll have an opportunity to live with it. And it is how we live with it and how we live with each other that's going to help us discover a lot of solutions, and a lot of fascinating stories about ourselves, our families, our faiths, our comforts, all of our appetites.

**Greg Dalton:** Right. I just want to compliment you on what you achieved in this because I found a lot of characters finding their way through this messy middle that I cared about and found interesting as well as a rich foundation of, factual basis of, like what's really happening. The policy, the technology, the sixth extinction, etc. I'm finding it really, really rich. However, as you know, Hollywood doesn't include energy and climate very much in scripted entertainment. Why do you think that is?

**Scott Z. Burns:** Look, I think the things that are science based are frightening to executives who have green light power in our business, which is sort of absurd. And I think problems without solutions sort of suggests that there aren't any heroes. And those narratives are narratives that I think have been put out certainly by the oil companies themselves frequently by certain media outlets. We have been taught to believe that this problem is way too big to change. We've also been taught that all of the solves likely are the denial of our appetites. And so, you're looking at a problem that says you can't have any fun, and pretty much no matter what you do as an individual nothing's gonna change anything. So, those are the pre-existing narratives that I think you walk into a room with as a screenwriter and the person across the desk from you has a tendency to say, yeah, this is depressing and it turns people off because it just makes them feel bad about themselves. And so, that whole meeting I just described to you, has to be rethought. And it can be rethought. And so, we went into this saying we just want to make stories, right. Like, you know, again, Dorothy Fortenberry had a great point. The shows that start coming down the pike at us in 5, 10 years that don't take into account climate change, those are science fiction shows, okay, not ours. You know a show that's a real show, and this is what I said to our writers' room early on: What does Romeo and Juliet look like in 2042? What does it look like when the farms in Verona are failing and these families have issues and there's, you know, people coming from places where there's drought. Like what if we look at the stories we know and love that have taught us how to be a society and we change the climate behind? them. So that was really what I went in and pitched because we need to recognize that the climate behind all of our stories is changing. That's not up to me. That's not a dramatic choice, that's reality.

**Greg Dalton:** You are a big fan of Norman Lear who got us to care about things using humor, serious topics, racism, etc. There is some subtle humor in Extrapolations, but mostly I'm finding it pretty serious. How do you weigh how to approach humor in something that's so heavy?

**Scott Z. Burns:** If I could go back and change one thing, there were some episodes we had in mind that we didn't lead with that if I'm given a second season, I would love to explore. Humor opens up people, I think there is even evidence put forth by neuroscientists that your brain opens up and pathways open up when people are laughing, that aren't there in the face of, drama, I think, humor doesn't happen in us early in the same part of the brain as some of our other reactions to things. Look, at the end of the day, I have no illusions about what our show had to be, we had to be entertainment. We are not making a documentary, and people have a lot of choices. It wasn't like this was supposed to be a public service announcement. We wanted to be thought of as

entertainment. We want people to, you know, to stick with us and hit next episode because they saw something that stuck with them.

**Greg Dalton:** Right. It's not preachy. It's not predictable and preachy the way so many. docs and others are. Hope is often at the center of climate conversations. Some say we need hope to avoid surrender. Others confide, 'I don't have hope, but I can't say that in public, so I fake it.' Where are you on hope?

**Scott Z. Burns:** I feel like I've been dancing with hope for about 20 some years now. Al Gore and I used to talk about hope. I have sort of a reaction to this issue that comes from having played sports all of my life, which is hope without a strategy doesn't work in my experience. I had a knee injury this year. And I've put on some weight. And I really hope I lose it. Now I can hope my way from french fried ice cream cone or I can hope my a\*\* to the gym. And I think if I go to the gym and get active, then I am hopeful that I'll change something. Well, I think the same applies here. Hope is something that I think is vital once you've committed to taking action. So what I always tell people is, can we please replace hope with bravery, with courage, with action? That's what we need right now.

**Greg Dalton:** Yeah there can be tend to be a sort of passive element of hope. It's like, oh, I hope it will work out. I hope someone else, people working on it, will solve it.

**Scott Z. Burns:** And for me, I have a very dear Buddhist friend in New York who is a doctor, and he said, you know, hope is actually something You know, his Buddhist teachers have said is really destructive because it's, encouraging, a sort of forfeiture of self that isn't really the point of Buddhism. It's not, you know, the lesson is not to detach from the effort, I want to put forth all of the effort I can on the things and people that matter to me. Do I recognize I don't have complete control over the result? Of course. but like to me that's, you know, that's adulthood.

**Greg Dalton:** I think I've heard you say before, hope as an anesthesia makes you uncomfortable. I think a lot of people is asking for hope are actually asking for comfort or anesthesia, And especially when children come into it, you know, care for children and future generations are a big part of the climate concern. One of the actors in Extrapolations, Sienna Miller, represents that in one gut wrenching scene where she talks about the effect of extreme heat days or EHDs.

**[START PLAYBACK]**

**NURSE:** Does he understand the severity of his condition? Have you told him?

**Sienna Miller:** Does he understand he could die from a sunny day? No, I haven't quite found the words for that. He knows he has summer heart, he knows what an EHD is and that he needs to avoid them. He calls them empty heart days instead of extreme heat so yeah he understands that he needs to be careful. (:32)

**[END PLAYBACK]**

**Greg Dalton:** So what does that scene represent about the future we're creating and how we talk to our children about it?

**Scott Z. Burns:** I want to answer that two ways. The first way I want to answer it is as, you know, Sienna's director in that moment and how we approach that as a piece of drama because again I want to emphasize that we don't when we were working on telling a story think about the outcome. We think about what is a playable moment for Sienna and what rings authentic. Now, Sienna is a mother and so she has some really strong feelings about communicating to her children. And, you

know, what can you tell them that doesn't scare them but what you need to tell them to make them aware. And so, how do you go into a scene as a mom and think about what you need to share about reality to have an authentic relationship with your child and how can you frame that? And it does go back to the hope thing, teaching them hope and saying it's gonna be okay. That's not cool anymore. That doesn't work. And that will end up, I think, having a lot of young people resent us.

**Greg Dalton:** Yeah, it doesn't build trust.

**Scott Z. Burns:** Yeah. And so lying to your child obviously can't be the right thing. And that was really the direction going into the scene that she has with the nurse is, you know, this nurse figure is an opportunity for you to struggle with this. It's another adult that you can confide in about the shame you might have felt about lying to your child.

**Greg Dalton:** This is Climate One. Coming up, the connection between capitalism and climate disruption:

**Scott Z. Burns:** It's easy for me to imagine that someone will go okay, well yeah, the ice is melting from the top of the world and yes, that's tragic, but my God, look at the minerals. We could get those and create new wealth.

**Greg Dalton:** That's up next, when Climate One continues.

**Greg Dalton:** This is Climate One. I'm Greg Dalton. Let's get back to my conversation with Scott Z. Burns, writer and director of Extrapolations, a series on AppleTV+. The show presents the dark side of capitalism and human nature – corporations manipulating a female humpback whale so the species can be saved and monetized; pretending to save the Arctic in a scheme that's really about a casino near the North Pole; a young woman standing up at Passover Seder and telling her father that people in Miami are working below living wage so others can play golf. I asked Scott Z. Burns how he thought about capitalism in writing this series, which airs on the platform of one of the largest and most iconic corporations in the world.

**Scott Z. Burns:** Well, I mean I think I started by not really thinking about capitalism. I thought about characters and people who could be truth tellers or people who are likely to encounter stories in their lives that were going to be so disquieting that they had to react. So, that sort of where I started was how do you give a problem to a story and then grow a hero out of the firmament of that problem. And I think that's what all of those characters have in common. For me, a long time ago and you're gonna know the answer to this. The author who wrote the book This Changes Everything.

**Greg Dalton:** Naomi Klein.

**Scott Z. Burns:** Right. Naomi Klein said, I heard her speak once in New York about how climate change is a symptom of capitalism. And that line is actually in the pilot of our show. And I think there is so much truth to that. But now we're in a place where if you told me hey, Scott, here are two problems you've got to solve. Climate change and capitalism and you have 10 years. Ready, go. I don't know that we can root out capitalism. I really don't think that's realistic. I'm not saying she's wrong. I'm just saying, I don't know that the timetable that the planet and nature have provided for us. And so is capitalism the right tool to solve the problem? I don't know. I'm honestly not that smart. I'd love to hear smarter people give a point of view. What I do know is that it's the tool that's been stuck in all of our hands.

**Greg Dalton:** And some people would say, capitalism can move very quickly. Let's use it, harness it, in fact, speaking to characters, Matthew Rhys played a cold-blooded and murderous Soviet spy in

the series *The Americans*. What is his character in *Extrapolations* and what does he illustrate that you think we will see in the future?

**Scott Z. Burns:** He is the evolution of the denier. When I made *An Inconvenient Truth*, there were still deniers walking the earth. I think most of them have gone extinct. although I'm sure some of them still wander around the U.S. Senate.

**Greg Dalton:** They've evolved to dismiss, delay. Yeah, they've changed their stripes.

**Scott Z. Burns:** Now I think what they've turned into are opportunists.

**[START PLAYBACK]**

They say ice sheet in Greenland is going to break down the middle.

Rhys: Right, we'll build there next.

They say 3 meter sea level rise by end of century.

Rhys: They? They also said the same thing about Miami, all we did was make a fortune retrofitting the buildings. And guess what? When it goes up another couple inches, we'll f\*\*\*\* retrofit again. And make even more money. Here's what you need to know about global warming. It would all go to s\*\*\* at the end of the century, 100%. But we'll be dead. We'll have to miss it. But we'll be smiling in gold-plated coffins designed by Kanye. (:33)

**[END PLAYBACK]**

**Scott Z. Burns:** And so, I think he is a new category of being that I think we're likely to see evolve, which is the climate opportunist. Who sees in these changes opportunities to profit on the reluctance of people to change? On the reluctance of people to recognize that they've got to rethink, you know, some of the ways they are living their lives. And so, he to me is you know I think a logical extension of where we're seeing people right now. I mean it's easy for me to imagine that someone will go okay well yeah, the ice is melting from the top of the world and yes, that's tragic, but my God, look at the minerals. We could get those and create new wealth and boy, I bet we'll do something great, and we could but we probably won't.

**Greg Dalton:** Well, I interviewed the former Prime Minister of Greenland on a ship off the coast of Greenland, and he'd be very honest about the tourism and economic opportunities that are opening up for those people. And who are you know, white people further down to say that that's bad or wrong and judge them for that. Another scene that really was compelling for me was when Edward Norton in the Oval Office with the president and others, and Norton is talking to his ex-wife who was in a drone. A little bit of a spoiler, alert, you know, gone, rogue.

**[START PLAYBACK]**

Ed Norton: Nobody was trying to change the climate. We didn't even think we had that capacity. We didn't know better, but we do now.

Gita: And yet human behavior doesn't change. The sky is easier to reengineer than the human brain, John.

Norton: Exactly. And if you tell that greedy monkey brain it's cooled off and everything's okay it's going to say give me a little bit more, just let me burn a little bit more. Just let me mortgage a little

more of the children's future so that I can juice this quarterly balance sheet. I just need that one.

**[END PLAYBACK]**

**Greg Dalton:** I'm curious what you are saying in that scene. And if you agree that it's easier to change other things other than ourselves.

**Scott Z. Burns:** Well, I mean, this may seem cowardly on my part. but you know, I feel like it's the role of art to raise questions. And I always worry about answering them for the audience because that starts to feel like propaganda.

**Greg Dalton:** So your goal in that case was to raise the question in how people talk about it and think about it.

**Scott Z. Burns:** Yeah. Look, I think it's an important question and when I was writing that scene I really struggled with it for a long-time kind of going well, you know I had spoken to a number of people who are expert in geoengineering. And I do think geoengineering will be irresistible to people who cling to the status quo. And yet you know what Al Gore told me almost 20 years ago was the definition of the science experiment is an experiment you can repeat in different parts of the world and get the same results. This is not a science experiment. We will do this once. We will never repeat it and we don't know what will happen. And if we're at a place where we are so desperate that we are going to re-engineer the sky, that's terrifying to me. And yet, you know, when I speak to the people who have, are building companies, I mean, you can Google it right now. There are a lot of startups that are really focused on us. That sort of speaks to our love of the technological fix and the solve and you know, and I think that is sort of how you get to Hiroshima.

**Greg Dalton:** And the show depicts plenty of fanciful technologies and autonomous personal helicopter you mentioned didn't have flying cars, but it's very close to a flying car. It doesn't drive around, but, Sienna goes around in a pretty cool, autonomous drone helicopter like goggles that display virtual and augmented reality. There's a zero-emission cargo plane and other clean technologies. You don't have a personal view about technology, but how are you presenting technology? in the series.

**Scott Z. Burns:** You know, in my line of work, we call that world building. and I think we need, you know, my view is we needed to do just enough so that people could consider that we were marching through time because the conceit of Extrapolations was to start in 2037 and end in 2070. And so there was like a constant need to refresh and you know, all I could think about is, my smart phone and how it was bigger and it flipped and then it got smaller and now it's gotten bigger. It's got a camera. so there was that part of it. And then there are other things that were fun to think about, like delivery drones and that getting automated. And I was like, whoa, if you can do a delivery drone, you can probably do a self-driving helicopter. There are already are self-driving cars, it was the same exercise of looking at the technology that exists now and extrapolating into the future and thinking about, you know, what is a phone call? what's what's a window, which to me, you know, and again, this is a larger thing. that I would love to have, be its own episode. I do think smart windows have a very good shot at catching on, and it terrifies me that you could live in a place and begin to create an artificial outside world that started at your window. And does that make it harder for you to relate to the degradation of what's going on for real in the world outside your window. And is there going to be an interesting moment where someone starts saying, well, wow, if we show someone a polar bear, on their window. Or a lion. Or a tiger, what is that do in their brain that's different from a safari? And are we ready to let go of lions and tigers? And man, that's just that's beyond heartbreaking to me.



**Greg Dalton:** Right. yeah. Right. will we accept simulated nature and allow real nature to die? Geoengineering and kind of, you know, driving extinction raises the question of, humankind of playing God on the planet. Now I'd like to explore the moral aspects of this. You've described Extrapolations as a meditation on the uncertainty we face and Buddhist would say, we need to detach ourselves from specific outcomes. Daveed Diggs plays a rabbi who is called spiritual first responder in the climate crisis, a term I love. So how do you see the spiritual dimensions of climate and how is it reflected in the series through Daveed Diggs and others?

**Scott Z. Burns:** So, one of the other executive producers on the show is a really amazing woman named Dorothy Fortenberry, who had worked on Handmaid's Tale but is a very committed climate activist. And Dorothy is also a very devout Catholic. And I come from a Jewish family although not a big synagogue-going practicer. I am aware of my Jewish identity for sure. and so, we would have conversations and you know she really, she gave me a copy of the Pope's encyclical towards the beginning of our time together, you know, said this is one of my favorite books. And it's a beautiful thing to read the Pope pointing out our responsibility to stewardship of the planet and to the creation. And although I may not be a Catholic, I think the sustenance that one gets from nature that the reminder that you're an animal that that there should be seasons. You and I have both gone to Alaska. Since my experience going there to clean otters I try and go back every couple years and go kayaking. For me, that is spirituality, you know, like that's how I connect is I go back into the world and I look at what's there and what's beautiful and what's worth it, and what is soothing and what teaches you about life and what teaches you about death. And it is terrifying to think about that point of reference, the availability of that experience. For that to vanish, it's already not available to, you know, people because of income, which is a tragedy. and so, you know, For me, the spiritual component of this is huge. You know, like we are of this planet and we need to connect with it. And I know that sounds like, you know, hippie bull\*\*\*\*. But it's really not. I, really, you know, there's plenty of science to back up what is helpful, about, you know, connecting with, you know, with place,

**Greg Dalton:** Right. Many government and corporate leaders say that incremental progress is being made, and we can look in the news every day for like, oh, solar are growing, EVs are selling. The Willow project recently approved in Alaska was smaller than it could've been, for example. What do you think of incrementalism?

**Scott Z. Burns:** I think incrementalism is not the right strategy for an adversary that you can't negotiate with. The planet doesn't really care about incrementalism all that much. Maybe you slow things down but you're not really making the changes that the science has told us to make. A friend of mine who works in politics says, the Democrats are eager to compromise the Republicans are eager to show that they won't compromise. So, you live in a town and there's a river going through the middle and the Democrats want to build a bridge and the Republicans say we're not gonna spend taxpayer money on a bridge. So, they fight, and they whatever and then the Democrat comes back proud of the negotiation and the compromise, and they build half a bridge. And everybody drives into the river and dies. So, like that seems to happen a lot around this issue in my opinion. And that's not gonna work here, you know. like we made all these promises to each other in Paris and my understanding is we've already overshot Paris. So, all the good feelings I had about Paris is been replaced by bad feelings about people not keeping their promises or fudging the data. So, as the show says at the end of the day the problem is gonna be us. And I worry that incrementalism isn't an indicator of urgency that we need to be saying, you know, I'd rather someone say to the oil companies, we'll give you incredible discounts on taxes if you rush. on technology that is going to take carbon out of the air like that to me, would be something more profound.

**Greg Dalton:** Exxon recently said they see huge revenue and profits and decarbonization in doing that. Perhaps surpassing petroleum. not a lot of trust for what Exxon says on this topic, but that was really interesting. You gave Viktor Frankl's book, Man's Search for Meaning to many people who

worked on the series, Extrapolations. Why, and what was the impact?

**Scott Z. Burns:** Yeah. I mean, for Frankl, you know, for people who don't know the book, Viktor Frankl wrote this book, you know, inside of a concentration camp, and he found ways to get through something I find much more immediately terrifying than climate change. And he was seeing people die all around him every day and knew that it was just a matter of his number being next. So like, I think if you can look to that book and see his strategies for coping, I think that that's a really great place for some people to start. The other day I was asked by somebody, do you think your show should have a warning in front of it? And I said, well, you know, I didn't say this but what I thought was when I watch a show that you know is a different show that is escaping and avoiding reality entirely. Do I get a disclaimer that says warning the hour you will now watch you know may lead you to believe that there's nothing bad happening outside? That's not true. So, no one is doing that. So, why is the onus on those of us who want to tell stories that show people how life might really be, why are we apologizing for our entertainment? Like I really don't understand the logic there. And yes, there is such a thing called you know, climate trauma, and I've been on panels and I've had these conversations and I am sure it's real and I'm sure I suffer from it. But here's what we did for self-care. We got up every day and we went to work and we made a show. And we talked about it and we talked about the issue and we built a community. And I can tell you that going to work every day with people who care about this issue, who talk about it, who think about it, who are engaged with it, laugh about it, cry about it sometimes, that made me feel better than anything I've done since An Inconvenient Truth. So that's one thing. The second thing is there is reason to be hopeful. You know, like when I recently spoke to Al Gore about the show, he again reiterated we have solutions for all of these problems, all of them, and will get more solutions the more we invest in these. What we don't yet have a solution for is for what you brought about what you brought up. a few, minutes ago, which is the problem is us. I mean, that's the final message of the show is will we solve our appetites, our greed, our empathy, all of those things. How do we come into agreement on those, and that is what will save us. It will save the planet. it'll save the critters. Like that to me is what I hope our show gets to.

**Greg Dalton:** Well, Scott Z. Burns, thank you so much for sharing your insights on Extrapolations with us today. Really appreciate it and congratulations on the series.

**Scott Z. Burns:** Thank you. Thank you so much.

**Greg Dalton:** On this Climate One... We've been talking about the role of climate in TV and film. Climate One's empowering conversations connect all aspects of the climate emergency. To hear more, subscribe wherever you get your pods. Talking about climate can be hard-- AND it's critical to address the transitions we need to make in all parts of society. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. You can also help by sending a link to this episode to a friend. By sharing you can help people have their own deeper climate conversations.

Brad Marshland is our senior producer; Our managing director is Jenny Park. Ariana Brocious is co-host, editor and producer. Austin Colón is producer and editor. Megan Bisciegilia is our production manager. Wency Shaida [Shey-duh] is our development manager, Ben Testani is our communications manager. Our theme music was composed by George Young (and arranged by Matt Willcox). Gloria Duffy is CEO of The Commonwealth Club of California, the nonprofit and nonpartisan forum where our program originates. I'm Greg Dalton.