

**Episode 2,351: Setting the Evil SOBs Straight on Energy, and More with Saifedean Ammous**

**Guest: Saifedean Ammous**

**WOODS:**  One thing that makes your book different from others on this subject – or, let's say, other major Austrian treatises – is a couple of chapters you have in there that you do not find in these other treatises.

You have a chapter specifically on technology and another chapter specifically on energy. And those stood out to me because, as I say, you don't see that in *Man, Economy, and State*, for example, or *Human Action*.

But you make a good case, certainly when you're talking about energy. Especially in a day and age when the sources of energy that we might normally want to rely on are being demonized and we're being urged to substitute inferior sources of energy.

So, it's important to understand energy, its significance, and what the economics of energy is all about. So, can you, in your own words, explain why a chapter on energy in particular belongs in a general treatise?

**AMMOUS:** The case that I would make for this is that the economics of energy are an inseparable part of our economic decision making.

And that if you really want to understand how capitalism became possible, if you want to understand the true power of capitalism and the real contribution that it has provided us, I think perhaps the most powerful way of doing so is to look at the amount of energy that human beings are able to consume because of the capitalist economic system.

I mean, obviously all economics textbooks will provide you with some more kind of subjective measures of the improvement of quality of life. Well, not necessarily subjective. There are some that are objective as well.

So, improvements in life expectancy, child mortality, prevalence of diseases, all of these things have improved markedly because of the market economy and because of capitalist advancement.

But I think perhaps the most powerful way of explaining that is to think of how much capitalism has allowed us to consume energy. And I believe there are several very important implications of thinking about it this way.

So, the first one is, historically, all humans had access to their own body's energy. And then if you wanted more energy to be dedicated toward meeting your own ends, you had very little choices.

You could get a horse, you could get a cow. But these were very expensive, and they required a lot of energy invested in them and in their upkeep and in their maintenance. And of course, another option was to get another human being and enslave them and make them your slave.

So, for the vast majority of human history, all of humanity had access to meet its own goals, using only its own body's energy. So, about 2,000 calories a day or something like that. This is all that you had to ensure your survival.

This is how you could grow your food, this is how you could keep yourself warm, fight off predators, hunt your own food. All of that, you could do it with your own hands and what your hands and feet and your brain could produce with the calories that you could consume every day. And that was it.

And a very, very, very tiny, small number of people throughout human history had access to other people's labor in the form of slavery.

So, if you happened to be a king 5,000 years ago or 1,000 years ago, you had an army of slaves around you who worked around you and allowed you to live a much better life than everybody else because they spent maybe half of their body's energy serving you rather than serving themselves.

So, they'd go and cut down wood to keep you warm at winter, boil water with that wood, and bring it to you so that you could take a hot shower or a hot bath, and hunt animals for you, protect you from animals.

So, slavery was, of course, an extremely valuable thing. And I think it's a very powerful way of understanding the benefits of capitalism, to understand that what it has done to us now is that the average American today has the equivalent of the power of 200 slaves at his disposal every day.

If you think about how much energy your car, your heating system at home, your electronic devices, how much energy those things consume. It's the equivalent roughly for the average American of 200 human beings.

So, it's like you've got 200 slaves working for you to meet those things, but you don't have any actual slaves. All of their energy is put into these remarkable, miraculous energy sources we call hydrocarbon fuels.

Which are highly compact, highly packed with energy and very mobile and very easy to move around to where we need them. And so, this, I think, is a very powerful way of explaining how capitalism advances our life, and it's a very powerful way of explaining how we economize.

Because this is truly one very important way in which we economize. We think about how to move our energy in the most effective way in order to meet our subjective needs. And perhaps a slightly original contribution that I make here – maybe not slightly.

Perhaps I'll just go ahead and say, an original contribution I bring in here is to apply the marginal analysis of the Austrians, of Menger, to energy in a way that I believe is extremely consequential for understanding energy markets today. Which I do not believe I've seen somebody else do it.

And the idea here is specifically that I argue against the use of the term "energy market" – which, being a hypocrite I just used a few seconds ago. We don't really sell or buy energy. We sell and buy power. And there's a distinction between those two terms.

Energy, incidentally, of course, is a difficult thing to define, and physicists have a hard time coming up with a definition of energy. But energy is this thing that allows you to do work or transfer heat. So, you can act on things, you can move them around, you can lift them, or you can heat them up.

That's what energy does. And it's not really true to say that we have markets for energy because energy is abundant and it is not scarce and it is available in infinite quantities at all – not all times and places, but it's available in infinite quantities, practically, for us as human beings.

The amount of energy that the sun gives to Earth in a day is more than what humanity consumes in an entire year. So, there's sunshine all day, every day, everywhere.

And then there's also all the massive amounts of hydrocarbon fuels underground, which, just the proven reserves that we have are roughly hundreds of times of all of the energy that we consume today.

And then you've got all the nuclear fuels, which are many, many infinite multiples of the amount of energy that we consume today. And then you have the wind, and you have the running water and tidal energy and geothermal energy.

So, there's an infinity, practically, of energy sources. But that's not what we're buying and selling. And there's a great quote from Mises, which I mentioned in the earlier chapter on marginalism, where he says, when trying to understand the water diamond paradox: *Why is it that water is cheap, whereas diamonds are expensive?*

And Mises says: *Nobody ever has to make a choice between all of the world's gold or all of the world's iron.* And so, that's why iron is cheaper than gold, even though iron has what may appear to be more essential functions, infrastructure and houses, whereas gold is mostly jewelry and decoration.

And yet gold is much more expensive because these decisions of valuation are taken at the margin. So, as an individual, you decide to value things at the margin at the time and the place where you're buying them.

And so, that's why water is cheap, whereas diamonds are expensive. Because in modern society, modern human society is built around the abundance of water. We go to places where there's a lot of water, we build a lot of infrastructure to make water plentiful.

And in that setting, a marginal extra unit of water is at most times in places for most people practically worth very little because there's an abundance of water elsewhere. And so, if I don't buy it from your supermarket, I can just walk another 5m or 50m and get to the other supermarket and buy water from there.

But if I were on a deserted island where I had no access to water at all, in that kind of situation, yeah, then water would be a lot more valuable than diamonds. So, valuation happens at the margin. And that, I think, is something that's missing from most analysis of energy.

Most analysis of energy will look at energy in terms of the aggregate. So, people will tell you: *Well, we're building a solar plant that has a capacity of this much energy.* That's nonsense. It doesn't matter what the total capacity, the total quantity of energy it produces is.

What matters is the marginal value of the energy to the person using it at the time and the place that they use it. And so, the tricky part of energy is not the abundance of energy, it's not making more energy.

We have infinite amounts of energy surrounding us at all times. The tricky part is taking that energy and transforming it into power. Which, the definition of power is energy divided by a unit of time. It's how much energy you're able to direct per second or per minute to meet a specific job.

And so, it doesn't matter how much sun shines on my hometown today. When I want to drive my car, I need to have a certain amount of power get into the wheels so that the car can move, so that it gets me from one place to the other.

And so, that's the good that we're buying. We're buying power. We're not buying energy. And I think this Austrian way of understanding energy is what people need to understand in order to, essentially, quit with the insanity of thinking that we can have modern industrial civilization while using pre-industrial technologies of wind and sunshine.

Because the only reason we can have modern industrialization is because we have high power, and because we are able to direct large quantities of energy at the margin at the time and place where we want them to be so that we can have the machines that we have do the things that we want them to do.

We want to be able to drive our car, turn on the light, run an incubator for a premature baby at a hospital at the time that the premature baby is born, and at all times that they need them. Not have the premature baby sit in an incubator that only works when the sun shines or the wind blows.

And so, it's immaterial what the total aggregate quantities of these things are. What truly matters is our ability to deliver large quantities of power. And so, for that you can see why hydrocarbons are so essential and so important and so really inextricably linked to capitalist civilization.

Because they're the only way that we can – well, not the only way perhaps. But they're the most effective way that we have for delivering large quantities of power on demand at the margin, at the time in the place where we want them.

So, you can take oil to any godforsaken place on earth. Any of the most isolated spots on earth, you can take oil, take an engine, and you've got giant amounts of energy to move things around or to light things up or to have electricity or whatever it is that you want.

You can take oil and gas and coal. You can move them around. They're very cheap to move around, relatively. They're relatively stable in containers. And so, you can get them to places where you want them and then you can have that power on demand.

And that's the problem with wind and solar. Why wind and solar don't do that is because you're basically hostage to the weather. And so, you can't just have the high quantities of power that you want on demand.

If you want it to live on those things, we can't run the refrigerator at night. We can't have light if the wind is not blowing at night. So, all of these things are impossible to get around, in the case of wind and solar, because there's just no way of having them produce large amounts of power.

Well, there is a way of doing it, which is batteries, but that just increases the cost by somewhere between 10x to 100x of the power that you want to produce. And so, in my mind, that's really the kill shot.

That's the real economic reason why wind and solar are extremely idiotic ideas that are only going to succeed in destroying our ability to live modern, civilized life. They are not alternatives to hydrocarbons. They are alternatives to civilization.

They are just ways of taking us back to darkness and cold and precarious survival because they don't allow us power at the margin at the time that we want it. So, that's why I think this fits into an Austrian textbook, because it's really only the Austrian marginal analysis that helps us understand this.

And it's not something that you see mentioned in books discussing energy and power in general.

**WOODS:**  I have so many things I want to bring up here from your book. There could be the discussion of whether labor is exploitation. There could be discussions of, what are the consequences of what you call the "denigration and vilification of capital ownership" by people like Marx and Keynes.

But I think I'm going to choose this one, just because our friend Gene Epstein, who hosts a debate series in New York City, was himself one of the debaters a couple of weeks ago in a general debate on libertarianism.

And the other side laid out the case for why libertarians are all full of it. And part of the presentation was: *You see, we have these things called externalities, and libertarians apparently must be unaware that we have externalities.*

I'm not exactly sure where this was going, obviously we've written about externalities. But these are things that can't be priced by the market. So, we have areas of life where resources can't be allocated rationally.

And so, there we do need to have political interference and political allocation of things. And there are both positive and negative externalities. And we have something called public goods.

Now you have some discussion of this, and I wonder, because I'm just tired of being told that we've never thought of this. No, I think it's more that you haven't bothered to read what we've said about it.

We have thought about it. How could we not?

**AMMOUS:** Yes, exactly. I mean, I've also been told this by a lot of people – and a lot of people who might even be quite sympathetic to Austrian ideas. I think a lot of people in the banking industry, or people who are interested in economics, they come across the Austrians.

They are fascinated by the superior ability to explain economic phenomena, understanding inflation, understanding money, understanding the business cycle. And then they just assume that Austrians are your run-of-the-mill Harvard/Chicago economists.

And so, therefore, they immediately assume that: *Well, obviously these guys are economists, so obviously they're not going to have anything to say about important things like politics and governments and what governments should do and policies and externalities and public goods and national defense and security.*

*All of the money stuff is okay for these Austrian children to play with, but when it comes to that serious stuff, then you need the mass murderers, basically, and you need to have legitimate excuses for mass murder and taking people's stuff. And obviously, all of these Austrians are completely clueless.*

So, the last section of the book – so, as I said, I worked my way up earlier explaining what was going on in the first four sections. So, the market order is the fourth section, and then the fifth section is the monetary economics.

We discuss time preference, interest rates, and the business cycle from the Austrian perspective. And then in the final section I termed that section "civilization".

And I discuss defense and violence, and civilization as the product of, essentially, a society in which people accept the premise of property rights, accept the sanctity of property rights, and don't violate each other's rights.

And therefore, because of that, we get to live in an extended order where you can trade with others, where you can peacefully accumulate capital, where you have a certain amount of confidence in your ability to maintain your property. And that's what gives us civilization.

And so, I hope a lot of people read this – particularly people who think of themselves as critics of Austrian economics, but in reality are just very, very astute critics of their own ability to read.

Because they tell you: *Well, Austrians have no answer for violence. Well, what happens if somebody doesn't want to be a libertarian? What happens if somebody doesn't want to abide by the non-aggression principle?*

I think the predominant idea – and I see this a lot. I see it's a very common misconception. I see it among many Bitcoiners who get into Bitcoin for various reasons, then get to learn about Austrian economics.

And then their conclusion is: *Well, this sounds nice in practice, but obviously libertarianism can't work because we live in a world of animals and a lot of people are animals and a lot of people don't want to abide by these things*.

And it's funny to me because they seem to think that libertarianism means: *Let's just keep asking everybody to be polite and nice, and then we'll get to live in civilization.* And for them, this seems obviously ridiculous and unworkable.

And therefore the only alternative is that we need to have a violent monopoly on power that gets to kill and take the property of everybody.

Because that's the only way that you can have a system in which we have private property is to have one authority, one body, one monopoly agency that can take away everybody's stuff. Which is obviously a contradiction in terms because the whole idea of having property is that you get to keep your property.

And so, if you're saying that we need to have an entity that can just violate property rights in order to maintain property rights, you clearly haven't thought this through, which is what statism ultimately is.

So, in this book I use Rothbard's *Power and Market*. I use Hoppe's *Myth of National Defense* and *Democracy, the God that Failed*, and also Edward Stringham's excellent book, *Private Governance*.

And I make the case that, look, this isn't something that is unknown to Austrians. Austrians aren't innocent little children. And they're also not pacifists. I think this is a key point. There's a distinction between pacifism and libertarianism.

Pacifism means you don't engage in violence – full stop. Libertarianism is not pacifism. It doesn't mean you don't engage in violence. It means you don't initiate it against peaceful people. But it doesn't mean you can't defend yourself against people who initiate violence.

So, that defense against aggression is just another market good. And there's no reason why it should be any different from all the other market goods.

And so, I try to systematically go through all of the justifications that are given for why this one particular good is different and that the only way that we can manage that particular good effectively is to have a violent monopoly that is able to provide it essentially by violating it.

We can have security by letting a bunch of people have the ability to destroy our security whenever they want, and then once every four years we get to replace them with a new group of sociopaths who can violate our security whenever they want.

And again, this is thanks to the foundation that I lay in the first few chapters of understanding what is a good, what gives things value. Menger says that what gives things value is something is scarce and it has utility.

Those are the two things that give economic value. So, defense from aggression is just another market good, because it has value, because it has utility. You obviously prefer to not be robbed and assaulted and murdered.

So, there's utility to somebody who protects you from that stuff. And there's scarcity to it because there's an infinite amount of potential threats and there's a finite amount of resources you can dedicate to your defense and security.

So, what we have here is just another economic good. So then, how is this economic good provided? And I think the very powerful idea here for people to consider is that we already live in a world in which we have a free market in security.

Defense from aggression is a free market. And so, the most startling stat here is that there's probably about twice as many private security guards in the world than there are policemen in the world. And this makes a lot of sense.

If you walk around in your local town, you'll see that your bank doesn't rely on police to keep it safe. They have their own security. And this isn't a slight against police as much as it is just normal. Why should I, as a taxpayer, pay for a policeman to provide you and your bank with security for when you go there?

It seems to me like it's just much more fair that I pay for my own security with my own bank. My bank pays for their own security, your bank pays for their own security. And everybody pays for their own security because ultimately, security is a good and it is provided at the margin.

Again, we go back to marginal analysis. So, in the statist imagination, security is a switch. And you need a government to flip that switch to say: *All right, no more crimes, no more theft, no more bad things. All the bad things are, from now on, illegal. And then there's security blanketing our society.*

Nothing is like that. There is no switch. It's not an on/off switch. Just like we were saying earlier with water and diamond, or with iron and gold, or with energy. Nobody ever has a choice to make between full security and full insecurity, or having all the gold in the world or having zero of the gold in the world.

That's never a choice that anybody has to make. The choices are not made in the aggregate. The choices are made at the margin. Who's going to get the next policeman? Should we hire an extra policeman? How many police does your house get? Your street? Your neighborhood? Should you get a private bodyguard? Who should pay for it?

We go back to the economic calculation problem. It's an economic calculation problem. And the only way to solve this is through private calculation. And that's, really, Mises's enormously powerful insight, is that the only way to allocate resources efficiently is through having property rights and having people perform economic calculation.

And so, that's obviously why private security is more and more important than police, because there's no rational way of allocating police. Because police, as an economic good, is not owned privately, and therefore, there's no way of performing rational economic calculation on the best ways of choosing this.

And so, we do have a free market in security. And, in fact, as Rothbard says, it's better to think of the police and the state's security apparatus as being out there to protect the state. They're out there to protect the state rather than you.

And as Rothbard says it, just compare the vigor with which the government goes after crimes against the state versus crimes against citizens. Or, to extend that even more, compare how they prosecute state crimes against citizens versus citizen crimes against the state.

I think this tells you all you need to know about what the police is there for, and that really your security is primarily in your own hands. So, whether you buy your own gun or you hire private security guards, you are the one who can secure yourself.

And in fact, with the weapons industry, again, we see that the weapons industry is predominantly private companies that are producing the weapons, and they are private companies that operate in the free market.

And so, once you get past the status propaganda, – which is essentially economic illiteracy, this idea that we need to flick a switch so that we have full security for everybody – you realize security is just another economic good.

Everything from alarm bells, to locks, to guns, to weapons, to all forms of security guards, all of these things are economic goods. And increasingly, more and more and more people are coming to treat them as economic goods.

Because economic rationality prevails, and economic rationality leads people to act in a way that is in their self-interest. And so, these are not things that Austrians haven't thought through. These are things that, just, people don't like to read because they have been very heavily propagandized with Keynesian and statist ideas.

And so, the conclusion from this, when I look at the market for defense and the market for protection, is that ultimately what we have is, with current governments and the enormous amount of power that they have over people's lives, we've got to a point in which the real threat to people's security and well-being is exactly the government.

If you look at most of the world today, the vast majority of people are suffering from the problem of government. Government is robbing you directly through taxation. It's robbing you indirectly through inflation.

It's robbing you indirectly by taking so much of your money to provide you with security that is completely dysfunctional.

The US government spends trillions of dollars on security, and they have military bases in Korea, and in Qatar, and in Africa, and in Latin America, and all over the world. And yet children in Chicago can't walk to their local grocery store to buy groceries because Chicago is like a war zone.

So, imagine if all the money that you, as a citizen of Chicago – all the money that gets taken from you in taxes and inflation and all other creative ways in which the government robs you. Imagine if you had all of that money for yourself and you could spend it on security yourself.

I mean, you could give every single person in Chicago a private bodyguard with the money that the state takes from them. Half of the population of Chicago would be employed as bodyguards for the other half of the population, and everybody would be a lot more secure.

So, the real challenge – and this is the point of the final chapter. Is that if we are to have civilization – obviously, I'm not doing it justice here, it's a lot more complex of an argument. But really what we want as a society, to have civilization, is to have a world in which we are able to give our children a life better than our life.

And in order to do that, we need to have the freedom to accumulate capital, the freedom and security to be able to maintain that capital for the long term. And in order to do that, the biggest threat that we face currently, I believe, is governments.

And I believe there's a lot of reasons to be upset and depressed about how much more power governments have. And I go through these. In the final chapter, I go through how government money, in particular, fiat money, destroys and undermines every single one of the methods of economizing that I have discussed in the previous chapter.

So, the book is 18 chapters. And in chapter 18, I go through chapters 3 to 17 and show how having money in the hands of the state and having a monopoly of violence in the hands of the state undermines every single one.

It undermines our ability to work. It undermines labor markets. It undermines our ability to maintain our property. It undermines our ability to accumulate capital, to trade. It undermines our ability to have money as a market good. It undermines capitalism. It undermines economic calculation.

And I go through these one by one – and it creates the business cycle and so on. So, there's plenty to be depressed about. But there's also a very optimistic conclusion to the book and a very optimistic thread throughout the book.

Which is that throughout the book, what the book is, is the triumph of reason. The book is, well, we face this problem and then we figure out, hey, if we accumulate capital – like, Robinson Crusoe is starving and he's hunting.

So, labor as a way that he gets over the adversity because he uses his reason, and he realizes those rabbits are delicious. So, he catches the rabbits and he eats them and he lives another day. And then he uses reason to come up with a spear that will protect him from predators. And then he invents a capital good that hunts and produces more rabbits per hour of work.

And so, all along, we find that human reason continues to triumph. And capitalism is essentially a bounty program for human reason to solve our human problems. And that's what allows me to end on the positive note, which is that all of these problems are the problems caused by money, by government money.

And so, the more intense those problems, the bigger the reward for finding a solution for them and the more successful a potential solution is. And that is what I believe Bitcoin is. Bitcoin is the market's solution to this current threat that human civilization faces.

It used to be lions and bears and other barbaric tribes and people who don't respect our property. And it used to be nature and all kinds of things that have faced us as threats throughout history. And we found a way around them.

Obviously, a lot of them, they killed a lot of people, those threats. But we found a way around them because of our reason. And I believe Bitcoin is how we're finding a way around this cancer that is government money, that is truly tearing apart the fabric of human civilization.

**WOODS:** I would like to end on that note because it's such a climactic moment. But just can't help it. I want to ask you one more thing. And I would love to, by the way, pepper you with follow-up questions.

And if I were Joe Rogan and we had three hours, I would. But I've got a bunch of things written down. There's one more I want to ask you about. It's just a heading that you have on page 236, and I just feel like there's interesting Austrian wisdom tied up in it.

And it's simply this, *"Capitalism is entrepreneurial, not managerial."* Now, what do you mean by that and why is that important?

**AMMOUS:** Yeah, I think this is a very important point that Mises emphasizes – and I think Per Bylund, as well, likes to always keep banging on this point on Twitter. I'd say I put it in there for him because he's always reminding me of it.

I think it's a very powerful point and it's very important. It's one of the many, many, many things that socialists get wrong about economics. Well, everything they get wrong about economics, it's not very special about it.

But it's this idea that for many of the socialists, they think the economic problem is just about managing to allocate the resources that currently exist in a way that works. Which, to an extent obviously that is a problem, but that could be a solvable problem in a static situation.

So, today we live in a capitalist economy, and this is how economic production is organized. Well, if we turned it into a socialist economy and we just had a government entity take over all the capital, we can keep everything as it is.

You keep your job, and you keep your pay, I keep my job, I keep my pay, and we just keep turning up. But instead of all of us working for the ten fat-cat capitalists that owned the entire country, we now work for the one fat-cat government that owns everything instead of the ten capitalists.

And then nothing changes, right? In fact, because it's the government, and the government is made out of angels as opposed to evil capitalists, as we all know. Then the government can, of course, just allocate those resources better because it cares about fairness.

So, instead of the rich people getting to have a fifth villa – or you can take the money from the fifth villa and hand it out to thousands of poor people who get to have food for a month or something like that. And so, this means better economic allocation.

But the problem is that this completely ignores the idea of entrepreneurship, which is something that not only the socialists don't get, but it's also mainstream economists don't have any conception of entrepreneurship, because it doesn't fit into their models.

Because their models cannot accommodate an entrepreneur who basically shows up and tears the model apart.

An entrepreneur shows up and says: *You know what? No. No more typewriters, no more typewriter factory, no more typists, as a job. We're scrapping all of that and we're doing personal computers and printers from now on.*

That's what entrepreneurship is. And it's highly destructive. Well, disruptive, I should say. It's highly disruptive and it changes things and it creates a new world. And the real insurmountable problem for socialism is how to calculate for a future that has never existed before.

It's much more difficult than calculating for the future that has existed, let's just keep everything as it is. Well, what do we do when somebody invents something new? How do we invent something new? How do we live in a world in which new things are invented?

And socialism has no answer for that.

**WOODS:** Well, having gone through this, let's say, whirlwind tour – and it's – I feel like I'm trying to give people, I don't know, like, a tour of Vienna in 15 minutes. And it's interesting that I chose Vienna as my random city. I guess that's appropriate.

But there's so much in here, and I wrote down so much stuff while I was reading it. It's fantastic. It's so important. And especially, there are a lot of people out there who are not economists, let's say, by profession, but who know some economics, but maybe have some gaps in their knowledge.

Or they never really learned it systematically and they feel like they'd probably have to go through some big, long curriculum to do it.

If you read *Principles of Economics* by Saif here, you're going to you're going to have the knowledge you need. As a layman, more than the knowledge you need. And it's explained in a way that you will find instantly comprehensible, but not simplistic.

It strikes a perfect balance. And I generally have complimentary words to say about books whose authors I feature on this show because why would I have an author on who has written a bad book? I wouldn't waste my time.

But I'm not usually this effusive in my praise, so that means you really should go get it. So, number one, it'll be available at TomWoods.com/2351, our show notes page for today. You can also get it, I'm sure, from the usual online sellers.

But no doubt you can also get – can I assume people can order, at least there are links to order at Saifedean.com?

**AMMOUS:** Yes, absolutely. You can order directly from my website. We fulfill to the whole world, basically. And yeah, you can also buy from most regular booksellers.

**WOODS:** Excellent. So, please go do that. This is a fantastic and very, very much needed piece of work, so well done. And it must have been so extraordinarily satisfying to put that last finishing touch on it after all that work. So, congratulations and thanks again.

**AMMOUS:** Thank you so much, Tom. I really can't tell you how thankful I am for all your kind words and for having me on your show again. It really means a lot. Thank you so much.