

Introduction to Biomimicry
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Lecture – 41
Course Wrap-up

The final 10 minutes of this course, Mrinalini and I never imagined that we would talk to you about the final 10 minutes of this course because we know we are taking on something massive and mammoth and really back breaking work, but we were not really worried about the work because the inspiration that we received when we learned biomimicry.

And the opportunity we had for influencing lots and lots of people into thinking differently, into making them look at creativity in a completely new way was something that we would never have given up the opportunity off, never. So final 10 minutes and all that, how does one end an 8-week course? How does one end it? Of course, the usual if it is a speech then one gives a vote of thanks and things like that, but this is not a speech.

So, I thought I will end it with some material that you can use from books. So, I have about 6 book recommendations for you. And if you can get these books and you can actually write to us that you got these books. I am having the germ of a new idea, maybe we can start biomimicry club where we can discuss these books in detail. Some of you who have read these books can present these books and the biomimicry club can flourish with all the inputs by the participants.

You never know where a new initiative takes you. Look at all the initiatives around you, they all started small with 2 or 3 people and then led on to something really big and important. I believe very strongly that if the intention of an initiative is noble enough, then there is nothing to stop the initiative from becoming a very huge important initiative. So, with that beginning, let me go to the books I have in mind for you.

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Books for inspiration



So books for inspiration, all books are for inspiration which is why the title is appropriate. Biomimicry, we started this course with recommendation of this book. This book is special simply because it started the biomimicry revolution. I am not going to give away the suspense. I think every one of us must have Janine Benyus' book in our shelves. Biomimicry and business brought a completely new perspective to biomimicry for me.

It has got nice 5 or 6 case studies in business where biomimicry has been used successfully and very nicely, easy story-like way of writing. I am not going to again spoil the fun, just get the book and remember the case studies, a very well-written book, I think every one of us must have this on our shelves too. Shark's Paintbrush was a big surprise because when I bought this book, I did not imagine that I would get so much information from.

Shark's Paintbrush has got hundreds and hundreds and hundreds of industries, inventions, and patents that people have filed in and around biomimicry. The author himself is a very famous biomimic. So, the most important part of the Shark's Paintbrush would be the reference section because suddenly if you think has there been any invention, is any lab, is any university working on a particular problem, you just have to go to the reference section.

Because there are thousands of people all over the world working on biomimicry-related solutions and the Shark's Paintbrush captures them very well. Very well written chapter-wise, organism-wise, species of organism wise, and all that. Again, I am not going to spoil the surprise, but it is important that you have that book on your shelf. So, you have got 3 books on your shelf.

You have got Biomimicry Innovation Inspired by Nature by Janine Benyus, you have got Biomimicry and Business by Margo Farnsworth, you have got Shark's Paintbrush by Jay Harman. And this is a book I would put in any lecture, any presentation I give it is called The Fifth Discipline by Peter Senge. This book was recommended to me by Mr. F C Kohli from TCS way back in 1993, when I first met him and it has never left my sight after that, so the book will be always with me.

A copy of the book I always have. I recommend it to all my friends. Very appropriately I was leafing through the book, books have this magic. I am not going to claim that I have read every page of every book I am talking about, but books are about, it is like storing grain, just like storing atta and rice and all that. When you feel hungry you go and take the rice and you eat it, it is not as if you know every grain of rice that is there, similarly books.

When suddenly you feel like you need some information, you go to the book. The book is a storehouse of information and knowledge. It does not mean it has to be read from end to end that is what I think books are about. So, while I was leafing through the Fifth Discipline today, there is one thing on page number 57 it says today's problems come from yesterday's solutions. So, brilliantly apt for biomimic.

So there is this story of a carpet merchant who has got a beautiful carpet and he sees one small blob in the middle of the carpet. He goes and as usual just put the steps on that blob and it goes somewhere else. And again, he steps on that, it goes somewhere else, so it keeps going from under the carpet, under the carpet, under the carpet and then ultimately a snake slithers out of the carpet, but he finds that the entire carpet has been ruined.

And so that is one of the laws of the Fifth Discipline the book says that today's problems come from yesterday's solutions which means if we have a problem today, it is because of a solution that we came to yesterday. And if you look at the purpose of biomimicry, it is so apt that we got the solutions that the world has for fuel, for energy and everything but those things have become a problem for us just like for the carpet merchant.

So read this book, put it on your shelf, hopefully you can take a picture of these books on your shelf and send it to us. Thinking in Systems, very similar to Peter Senge's Fifth Discipline,

again about systems thinking Donella Meadows writes, it is little scholarly book, so you need to be at your thinking best to read the book, but again a book that I will recommend. And finally, I come to the one book that brought in a completely new way of thinking for me is Ishmael by Daniel Quinn.

And it led me to understand not why I want to do biomimicry, but why is biomimicry even relevant that is what the book taught me. So, the book starts off very beautifully with the author of the book applying to an advertisement, so the advertisement appears in the paper, this is the advertisement in the paper. So, the author of the book looks at that, he says look at this advertisement, so funny, teacher seeks pupil must have an earnest desire to save the world, apply in person.

So, the teacher seeks pupil, normally we will say the pupil seeks teachers. So, he applies, Daniel Quinn applies. It was a story, it is fiction of course, he applies. And then he goes into a dark room and in the dark room, there is a very dark portion of the room that is covered by a glass wall. And he looks across the glass wall and he sees a gorilla. And he stands, he says what is the gorilla doing here? I am looking for a teacher.

And then the gorilla says I am your teacher. And then starts the whole context of the book. This whole book is about; I do not think I will be doing justice to Daniel Quinn if I say the book is only about one thing, but what the book did for me was that it helped me understand that we as human beings look at the animal kingdom, look at the organisms as separate from us, there seems to be a separation.

It looks as if in cross-culture, we keep saying we and them, it looks as if it is we versus them, them being nature. And somehow this is what according to me the book is about, it tells you and it helps us understand that we have moved away from nature, even though we are part of nature, we have moved away from nature and that is why we have all the problems that we have. Because when we deal with human beings, we deal with them differently.

But when we deal with nature, we deal with them differently. Why is that difference? Is there really a difference between the natural world and the human world? And because we have moved away because we look at them as separate and us separate, we do all the harm that we

do to the natural world. So, this book is that, it is that perspective that this separation is why biomimicry is needed.

If there was no separation, then you and I would not be talking to each other today, there would be no need for biomimicry. We will understand, we would have automatically learned from nature, so that is what Ishmael is about. So read that book, it is amazing. These are the 6 books I thought I will recommend to you before I go. I think I need to close now because we have been like I said very excited and I must thank all of you for joining this course, for being with us and we have some nice ideas, we are continuing.

We were talking about the biomimicry club and maybe we are talking about biomimicry 2.0 where many of you can start to teach. So, it has been a wonderful experience being with all of you. It is always really sad to leave, but leave we must so that the journey continues. Maybe right now, all of us are getting off the train, but maybe there is a new train somewhere, some other platform where we all will get into. Thank you very much. It has been wonderful meeting all of you. Thank you.