



## ABOUT WATER: -

An Interview with Jerry Dennis,  
Author of *The Living Great Lakes*

---

*Interviewed by John Freeman, Janae Greene, -  
Catherine Haar, Alice Horning, Beth Kraemer, -  
Gary Shepherd and Josephine Walwema -*

Jerry Dennis, a Traverse City resident and author of many books about nature and outdoor recreation, visited Oakland University on October 26 and 27, 2011 to speak about the Great Lakes and his books, *The Living Great Lakes: Searching for the Heart of the Inland Seas* (St. Martins Press, 2003) and *The Windward Shore: A Winter on the Great Lakes* (University of Michigan Press, 2011). He spoke to the university community, and met with students in the Honors College and in the OU Writing Center, where he talked about working as a writer. In addition, a small group of faculty and students in the Department of Writing and Rhetoric and from Kresge Library and the Honors College interviewed Mr. Dennis about water issues and about his life as a working writer. We are grateful to Alexis Halsell, our student assistant in Writing & Rhetoric, for transcribing the recorded interview.

**Horning:** We have questions of two types. There are questions about water issues and the Great Lakes, and those kinds of things. Then there are questions about writing and about your work as a writer. I wonder if you could start maybe by just fill-

ing in your background a little bit: where you went to school, and how you came to be writing particularly about the Great Lakes.

**Jerry Dennis:** Well, I studied English and creative writing for two years at Northern Michigan University, then moved to Kentucky and graduated from the University of Louisville with a BA in English. Dashed back to northern Michigan the day I finished final exams because I couldn't wait to start writing. Of course I couldn't make a living at it right out of the gate, so I worked for five years as a carpenter to pay the bills (I had a young family by then). Carpentry was good physical work that left my mind clear at the end of the day, allowing me to write evenings and weekends. I wrote my first book and broke into magazine writing that way. I had studied fiction and poetry and assumed that's what I would write but soon after graduating I was given an opportunity by a magazine to write an essay about fly fishing. It was great fun – and I got paid sixty dollars for it!— so I set out to explore the genre. I had never seriously considered writing about the outdoors or nature before that, but I became a student of the essay form and fell in love with it. In 1986 I made the leap to full-time writing and have made my living at it ever since.

**Greene:** The basis of my question I guess is I grew up on Lake St. Clair. I still live out there and we've seen in the past 100 years or so just this infestation of non-indigenous species into our water. I guess I was kind of wondering with the giant Asian carp. They're actually killing people, because they get so excited when they hear the boat motors. Or even plant life with the giant phragmites, a kind of grass weed. Do you see any, maybe future prevention or elimination of these? Or do you have any ideas on those at all?

**Jerry Dennis:** I'm not an expert in that field by any means, but I have talked to some experts and what I am hearing across the board is discouraging. The frustration level is really high be-

cause Lake St. Clair is the hot bed of it. That's where the zebra mussels first appeared, and many other ballast tank organisms that entered the Great Lakes where ocean-going vessels dump their ballast water. It's also a nice rich soup where things thrive. What's unbelievable and we're going to have to answer for in the long run as a society is why this has been allowed to happen year after year. The total number of "salties," or vessels that enter the Great Lakes from the oceans is miniscule compared to the "lakers," or vessels that stay in the Great Lakes. The idea that ocean-going vessels should be stopped from entering the Great Lakes was unimaginable 20 years ago, but is gaining traction now.

When the St. Lawrence Seaway was opened in the 1950s it was applauded as a triumph for commerce. It was also a Cold War plan to provide security for the middle of continent. Now, more and more people who are serious about non-native species as well as the economy are saying that we should never have allowed these vessels to enter the Great Lakes, let alone allow them to dump their ballast water. The shipping companies have tried a few things like ultraviolet lights and chemical deterrents and electrifying their holds. But I don't believe they've tried hard enough. It's too expensive for them. Now, all of a sudden we're realizing that those vessels and the companies that own them have cost this region billions of dollars. The biologists who are researching the effects of invasives are saying that the worst could be yet to come. Microorganisms that we haven't even dealt with yet could be here already.

There are efforts underway to find a solution to invasive species in the Lakes. The solution seems on the surface to be easy because the ships are actually required to dump their ballast water before they enter the Great Lakes, but they don't always do that. Also, the very bottoms of the ballast tanks are the worst part. They might only be a few inches thick, but it's a soup of living things that you probably don't even want to get close to. Who knows what's living in there? And periodically, it just gets dumped. The crew goes down to clean it and instead of disposing of it properly they just dump it over the side. Or

they could even be just flushing the system and dumping some of it overboard. It doesn't take much; it only took a handful of zebra mussels probably.

After talking to people in the shipping industry and in biological circles, I'm convinced the long-term solution is to prohibit the vessels from coming in at all. Cargo transfers occur in ports everywhere. It's really common to transfer cargo from an ocean-going vessel into a small barge or vessel and then get it up here. If they could do that it might stop any future infestations. Another thing that is kind of positive in some cases anyway is when there is an invasive species usually there's a huge explosion of population at first. That happened with the zebra mussels and with the spiny-tailed water flea (*Bythotrephes*), a tiny crustacean that made its way here from Eastern Europe. Suddenly they were everywhere in Grand Traverse Bay, where I live. Anglers couldn't run a fishing line through the bay without getting loaded with them; it looked like slime coming up. You looked closely and they had little black eyes, you know? Billions of them were in there and now their numbers are down considerably. Some invaders will simply run their course. I don't know if phragmites will. Plants are different; they tend to colonize.

**Freeman:** Yeah, I just thought you covered [the algae problem] really well in your book [*The Living Great Lakes*] the cleanup of Lake Erie and the issue of algal blooms and its impact on the walleye fishing. I'm wondering if you had an update on that. I just read an article about that all of the blooms are starting to come back.

**Jerry Dennis:** Yeah, including the toxic varieties, and we're seeing them in all of the other lakes too. *Cladophora* is another invasive algae that has been around for a long time, but hadn't bloomed in a long time. But in the last few years it's shown up in numbers you really notice in all the lakes except Superior. Superior has some but only in the bays because the main body of the lake is too cold. They've been clogging the beaches of

northern Lake Michigan for about five years now, just big piles of them decaying on the shore. I've seen people go down to the really great beaches in Sleeping Bear National Park and stop dead when they see this mess of green, smelly, decaying weeds in a border along the shore. You have to wade through it for fifty feet to get to clean water, and a lot of people just turn around and leave in disgust. That's been the problem. I touched on it in the talk today about the sources coming from agricultural runoff and municipal waste, but also from this concentration of phosphorus in the feces of the zebra and quagga mussels. As the algae decomposes, botulism organisms that are present all the time find this habitat really great for them and start multiplying. Fish like the round goby—an invasive fish—are in there feeding, they pick up the botulism, then birds eat the goby and start dying of botulism. And they're all birds we want to protect, like loons. In fact, one ornithologist I talked to said that he's afraid that 50% of the nesting loons in Michigan have died in the last two years. Luckily, we're still seeing a lot of them passing through from Canada. In Lake Erie, where agricultural runoff adds so much phosphorous to the water, the mats of algae are so immense that when they die they suck all the oxygen from the water, creating an enormous and growing dead zone in the middle of the lake.

**Haar:** One thing I was really impressed with when reading the book [*The Living Great Lakes*] was the way you help people understand the power of the lakes, because I think many of us who just take the ferry over to Mackinac Island go on a calm day. You really often don't experience the wind and the waves and everything. Several weeks ago we were in Saugatuck. And it was a day that was really windy. We hiked to the dunes and we couldn't even get down to the lake surface. The sand was blasting so viciously in our faces that we had hoods over us and I could see that kind of cutout where the dune has been scarred. I don't know what you call that in your description: a blow-out? Then you could just see the sand lifting out of that and just becoming absolutely airborne. I think up until that

moment I didn't understand the power that it has, and then we heard that the Coast Guard looked all night for a kayaker, who went down that day in the wind. The wind was not nearly as strong as you described it when you got up on the 10<sup>th</sup> of November. I'm trying to think if there's a question in there. Do you think most of us really get it? Do you think most people (who) really live around here see the extent of that power?

**Jerry Dennis:** Not unless you've experienced it. When you walk down on the beach on a day like that you get it. But people outside of our region usually don't get it. I made the point with Hajo Nuttle, who's an ocean sailor who had never been to the Great Lakes, and like so many people kind of laughed at the idea, saying "Oh, the Great Lakes, right." Then we had that storm that almost knocked us down on Lake Erie: one gust of wind that nearly tipped over this 74-ton schooner with the sails down, just the bare masts. Hajo said, "What the *hell* was that?" and from then on he never said "Lake Erie" he said "sceery Erie."

**Kraemer:** Related to that power of the lakes, you know people want to harness that and do these wind farms off shore? What are the hazards of that? How is that going to impact the ecosystem?

**Jerry Dennis:** I don't know. I don't know enough about it yet. A good friend of mine is in the wind industry; he's a developer of major wind projects all around the continent. He's one of the driving forces of the off-shore wind power, and his arguments make good sense. The generators would be far out in the lake, out of sight, and of course the wind out there really is an enormous untapped source of energy. It's a heck of a lot cleaner than coal or petroleum. Naturally, I always worry about what happens if something goes wrong. What if a storm knocks the towers down? What if a ship runs into them?

They'll be artificial reefs which will attract fish, which will attract birds, and more birds will be lost. But we don't know to what extent. Nobody really knows what kind of migration

routes there are in the middle of the lake. It's always been taken for granted that songbirds at least migrate down the shoreline. But some birds might use the mid-lake when the wind is right. What impact is that going to have?

I think it deserves careful consideration. I'm far from being convinced. Selfishly, the idea of these big manmade objects in the middle of the lakes bothers me. I see the Great Lakes as the last wilderness in this part of the continent and they won't be as wild. So, just knowing they're there might bother me. That's the romantic in me, maybe. I read about the controversy off of Cape Cod, and there are rich people who are objecting to an offshore farm because they would see the towers. They were ridiculed for it but they have a good point. I can understand it.

**Shepherd:** I'm interested in larger national and global water concerns, lack of water, and increasing problem with drought in the southwest and the west as population sizes increasing in those areas. And droughts are coming back and in well around the world as well. This goes beyond your focus on the Great Lakes except of course the concern that at some point the western states and others may want to tap into the that water. Is there any kind of concerted effort to try to come up with solutions to the water problems that the planet faces to sustaining human populations?

**Jerry Dennis:** There's a lot going on, of course. I'm on the Board of Advisers of a group of journalists called Circle of Blue. They're independent journalists who cover water issues globally. The group was started by photo-journalist Carl Ganter who has done a lot of work for *Time* magazine and the *New York Times*, and many other publications. He became frustrated because the more he learned about water issues on the global scale the more he thought "these are really important stories." He was aware of some of the comments made ten years ago or so, that water would be the oil of the 21<sup>st</sup> century, and he followed up on it and realized that there are a huge number of

very big stories that are not being told. So, he went to his clients and asked “Can we do some stories about this?” They weren’t interested in covering them in depth, so he started this organization as a nonprofit and he brings together fellow journalists and photographers and they fan out and cover the stories. They’ve done some of the most detailed and thought-provoking work that I’ve seen on water and environmental issues in general in China, Africa, South America, and in Mexico City, which has a huge problem.

The whole idea of privatization of water resources, with corporations turning it into a commodity to the detriment of the poor is a big part of those stories. The Circle of Blue journalists are making a difference, they’re being heard and getting some serious attention, but it’s still the case that they aren’t reaching a mass audience. They’ve got a website, they send out news blasts, and their stories are picked up by wire services and magazines and television occasionally. But again television takes a detailed long story that ten people might have worked on for three months and turns it into a two-minute sound bite.

The question of Great Lakes’ water being used by the world is touchy. There’s no question that the day will come when people are looking to the Great Lakes as a source of life-giving water. If that day comes it should be made available. But I would be the first to stand in a picket line if that water was being sent to the southwest for golf courses or to grow cotton in a desert. We need to be smart about how the water from the Lakes is used.

**Kraemer:** I had asked Jerry if when he is writing, does he lock himself in a room and write or does he go out into the coffee shops and things and pull in the vibe of a room to write. And he was describing the space that he puts himself in.

**Jerry Dennis:** We have a former cherry farm; it’s a 125-year-old farm house with just one acre of land and two cherry trees, but at one time it a large cherry farm with, I believe, 160 acres on



both sides of the road. My office is in the loft of an old stone outbuilding that was once used as housing for migrant farm workers from Texas and Mexico. When we bought the farm in 1991, that loft was falling apart. Drywall was falling off the walls, and the floor was unsafe to walk on. My father-in-law, who was a retired carpenter, spent a summer rebuilding the floor and insulating it and putting up beautiful knotty pine paneling. It's a really nice space, with views of East Bay, and I'm very lucky to have it.

**Shepherd:** You're a carpenter, but you hired your father-in-law to do this. So that suggests to me that you were now generating enough income from your writing that you didn't have to do any carpentry any more. In other words, getting back to the writing thing, is your writing now sustaining you?

**Jerry Dennis:** It's been my only livelihood for twenty-five years. For probably half those years I was the primary earner in our family, while my wife chose to be a stay-at-home mom. In the last ten years or so she has worked full-time in a job that she loves, so my income isn't as important as it used to be, which has freed me to do more creative work and less journalism. I still like carpentry and do a lot around the house, but I also went through a period where I had had a belly full of it and I didn't want to pick up a hammer. I just wanted to write so it was a really easy decision to hire my father-in-law, especially since he worked for basically nothing. We let he and my mother-in-law park their motor home in our yard and use our electricity and shower.

**Freeman:** Sounds like a trade. Do you have a set routine?

**Jerry Dennis:** It's pretty much the work schedule I've always had, 8 to 4:30 most days. I don't take much of a break for lunch, which has sometimes been hard for friends to accept. They're always suggesting we get together for lunch, but I can't do lunches because just knowing that I have to take that break will often wreck my morning. I need to know that I have all the

space and time I need, so I remain in isolation from the moment I wake up. But at 4:30 or so I'm ready to live again.

**Haar:** I have a question about once you started to amass all of this material and then you started to think how am I going to get this into some kind of coherent form [in *The Living Great Lakes*]. Did you consciously decide because it seems to be that it's almost a kind of a journey book? It's a little bit *Huck Finn*, it's *Canterbury Tales* in a way. It's this one main thing with a lot of things branching off from it. Did you know that early?

**Jerry Dennis:** No, I didn't. I wish I had; it would've saved a lot of time. I spent a couple of years searching for a way to tell the story before I stumbled upon the idea. I mean it's not an original idea, but I was very happy when I realized it would work in this case. It really took finding the right boat. I tried a lot of smaller vessels and took a lot of different trips and none of them were big enough, a big enough journey. It really took going to the Atlantic and I hadn't imagined that; I hadn't thought it would be necessary. But once I was on that journey and realized what was happening, I knew it. I had to go to salt water.

**Haar:** Then you knew how you could pull the rest of the material in and tell the story?

**Jerry Dennis:** And then it all fell into place, just like dominos.

**Haar:** I even like that sometimes rather than just narrating it yourself, there's a character who tells the material, and that is really dramatizing it in a way that really adds interest.

**Jerry Dennis:** Thank you for noticing.

**Haar:** So you had begun to work on what became *The Living Great Lakes* before you signed onto the Malabar?

**Jerry Dennis:** Oh yes, several years before.

**Haar:** You did the Malabar trip and thought “I’m going to write a book about this and bring in all this cool stuff about the Great Lakes”; or is it the other way around?

**Jerry Dennis:** I had worked full-time for two years before the Malabar trip and was starting to get worried because I had tons of material amassed but it wasn’t holding together. It was reading like a collection of essays. There’s nothing wrong with that—I had written many collections of essays—but I wanted a narrative. I wanted a drive, something to tell the story because I was worried that people would get bogged down in the chapter on the environmental story on Lake Erie for instance, or the fishery. So, they needed to have something to push it along, to propel the story. I was very lucky that the Malabar came along when it did.

**Walwema:** I was wondering about the subject; I’m not very familiar with your writing except what I’ve heard lately. I was wondering whether because you write about the Great Lakes that has driven you to crusade for it at all. If not, why? If so, how?

**Jerry Dennis:** It has and I’m doing more of it all the time. I’ve met with and spoken with the administrator from the Environmental Protection Agency. I’ve spoken before the Great Lakes Caucus. Each of the states has representatives and senators who are members of this caucus and their whole purpose is to learn about the Great Lakes, about what’s going on, what’s important, and what needs to be attended to. It’s bipartisan and it’s in earnest. I’ve never thought of myself as a crusader, never really wanted to be one, but it’s become increasingly clear to me that I need to step forward and take on that role, at least to some degree.

In the late 1980s, when I first started covering the Great Lakes for magazines and newspapers, the people I interviewed in conservation and environmental organizations complained of feeling lonely. They felt that they were standing up by themselves fighting this battle and they were really concerned. In

the 1960s the Great Lakes were a focus of the national environmental movement and inspired a lot of change. The Clean Water Act came directly out of Great Lakes efforts, and the Clean Air Act was not far behind. Then it looked as if the problems were under control and everybody got a little slack, until by the 80s the invasive species issue really started to heat up. So did the threats of water diversion. That was when some of the proposals were put on the table to sell Lake Superior water by the ship-load to Asia and other markets around the world. There were other crazy plans like piping water from Lake Superior to Montana, mixing it with pulverized coal to make a slurry, and piping it back to ships in Duluth for sale around the world. Environmentalists were saying, "Wow what's going on? We're all alone here fighting this battle and no one is really listening." I've very encouraged to see more people caring than since the 60s. Everywhere I go I meet people who are passionate about protecting the lakes, and it is nonpartisan. That's a big change too. The environmental movement was originally driven by mostly young and liberal people and now it's all ages, all persuasions.

**Shepherd:** And yet with the current political scene, you hear at least prominent Republican candidates for president talking in the other direction, trying to make the case that these are hurting the economy and hurting our efforts to create jobs and this kind of stuff. They want to roll back some of these regulations. Is it a viable threat?

When you say the environmental supporters are nonpartisan, you must be talking about the region things around the Great Lakes, because I think in general in terms of environments.

**Jerry Dennis:** I don't have any blinders on and I know the only reason most conservative lawmakers speak up in favor of the Great Lakes and other environmental issues is because their constituents demand it. Whenever you hear them start to talk about jobs, you know what's coming. You know they're going

to argue that jobs are more important than the environment. The people I've been listening to and admiring, who really know what they're talking about in these matters, are saying that a clean environment will create the jobs. That's exactly what the economy needs. But I don't think we can let down our guard for a minute.

**Freeman:** It's interesting to talk about the bipartisan nature of the support and the fact you said you don't have blinders on and you know that most of these politicians are just being motivated by public outcry and things. So, it sounds like you're somewhat hopeful that maybe the Grass Roots Movements can influence politicians the way they influence us. Do you think that there is still hope that we can influence the things that happen in politics?

**Jerry Dennis:** Yes, I still believe that process works and I am pretty hopeful. Grass roots movements are the strongest movements in the Great Lakes right now. They're definitely making a difference. Also, the scientists who are working on the issues are passionate and they know the score. Their hands are often tied and their budgets are completely dependent on Washington and Lansing and other capitols, but they care, as I mentioned when a student asked the question about the EPA. Of course I don't know what the current administration's agenda is in the long run. I do believe they are good people and they care but the ones who really care that I've gotten to know are in the trenches doing the research, are actually out there getting their feet wet. But the top positions are always political.

**Freeman:** But the good things I've read about Lisa Jackson, she studied in the trenches so she may be a political appointee but she has a passion for this. Being from Louisiana knowing about the environment there has definitely made this personal for her.

**Jerry Dennis:** Exactly, and I am very hopeful about her. Michael Leavitt, who was the administrator of the EPA under

George W. Bush, impressed me with his good intentions. His background as a very conservative Republican, a former governor of Utah, a state that doesn't necessarily place the environment very high in its priorities, didn't bode well. He had little understanding of the Great Lakes, so many of us were concerned. Then I got word from his staff that he had read *The Living Great Lakes* and wanted to meet me. So, I rode with him in his armored SUV for an afternoon with Secret Service agents in attendance, a very strange experience. I came away thinking he is a good man; he really does care and he just doesn't know where to start. He had no background for the job, but he really wanted to learn. He wanted to be briefed and he was astonished by what he learned about the Great Lakes. He had never seen them and I gave him a bit of a tour, and I said this is what we are concerned about, this is why and this what maybe the EPA can do about it. Not much came of it, but at least it opened his eyes.

**Walwema:** What about territorial issues like do we cross into international territories? I am asking this because I was born and raised in another Great Lakes region in East Africa.

**Jerry Dennis:** Where?

**Walwema:** In Uganda. We have Lake Victoria and we share it with Tanzania, Kenya, but Egypt gets its water from the Nile which flows from Lake Victoria. When you were talking about the weeds, I remembered that we had a weed called the water hyacinth and it was just choking up the lake to the point it constricted the flow of water to the Nile and Egypt had to send out its military. They had to work collaboratively Egypt, Tanzania, Uganda, and Kenya to just physically uproot this hazard. Yes, it was that bad but it sort of forced these countries to work together to improve the flow of water. So, I was wondering whether you have these issues with Canada, if at all it comes in internationally.

**Jerry Dennis:** Yes, it does in a lot of ways, every day. The International Joint Commission is composed of representatives from both countries and they work together on many issues. Unfortunately, in the last few years especially, Canada has not been cooperative. The current administration seems to be interested primarily in economic growth, so there are some really destructive things going on along the Canadian shores of the Great Lakes. Some of the people who are working on these policy issues are very frustrated with their government.

Here's an example: there's an initiative right now to open stone quarries along the north shore of Lake Superior, in the heart of one of the last pristine places in the Great Lakes region. These rock formations are stunning; they're beautiful and they're very ancient, some of the most ancient bedrock on earth. There are complex ecosystems of wildlife and fish. The Ontario government is granting permits to blast this rock shoreline to water level and use the rock for road construction in Michigan. It's coming right here to our lap. It hasn't happened yet but they've been given the go-ahead. The project has the support of the nearby community of Wawa, though it's widely known that it will create only nine full-time jobs.

I have not been to your part of the world, but my son is a filmmaker and he spent six months in Malawi making a film about malaria research. He visited Lake Victoria and fell in love with it. Wouldn't it be great if there was some kind of exchange program? I would love to swap places for a few months with a journalist from Africa's Great Lakes.

**Freeman:** I'd be curious to know if there are any other sorts of place-based Michigan writers you admire or that you read?

**Jerry Dennis:** There are many. The wild and untamable Jim Harrison, whom I'm convinced is among the enduring writers of our time, writes about Michigan better than anyone alive. I'll always be enamored with Hemingway's Nick Adams stories, because they are so true to the country. There's a long list. Laura Kasischke in Ann Arbor is a novelist and poet who writes

about a lot of subjects but is especially powerful when she writes about Michigan. Thomas Lynch, the essayist, fiction writer, and poet, is wonderful. Keith Taylor in Ann Arbor is writing poetry and essays that are original, compelling, and insightful. Mike Delp, Jack Driscoll, Ann-Marie Ooman, and Fleda Brown are good friends of mine who are doing honest and powerful work about northern Michigan. And though I'm not much of a fan of crime fiction, lately I've been reading some novelists working in that genre who are doing terrific work set in Michigan. Elizabeth Buzzelli, Aaron Stander, Joseph Heywood, and John Smolens come to mind.

**Shepherd:** You mention several poets and writers that you admire. Do you write poetry?

**Jerry Dennis:** Some. When I started writing, I wrote a lot of poetry that was unpublishable but served its purpose. I still write poetry but it's more of an exercise to focus on prose. It's a way to remind myself of the value of economy and to hone the language. Very often an essay or a chapter of a book will start as a poem. I don't consider myself a natural poet, but I like to read it. In certain moods it's all I read.

I've always done that; it's always been sort of natural to me, and I think it's because so much more of the work begins with an image or a feeling and I try to identify that and before I know it there's a few lines to play with. I'm always prepared for that moment, and hope there's a poem being born, but ultimately I'm far more interested in sentences than in lines. I did publish a long poem last year that was fun, and actually was an exercise, too. When I was nearly finished with *The Windward Shore* I was white hot; day and night that's all I could think about. The editor of the *Dunes Review*, a fine little magazine published in northern Michigan, emailed to ask if I had anything I could contribute. I knew I shouldn't take a break from the book, but you always want to accept a gracious invitation, especially from journals and magazines. So I started looking at stuff I was pushing to the bottom of the page as I worked on



the book. I'd been pulling phrases and fragments and sometimes whole sentences and paragraphs from the body of the work and pushing it down. Sometimes I go back and find stuff I like there, but usually not. I started pulling up stuff that looked like lines of poetry and playing with them and arranging them. Pretty soon I was able to make a "found" poem that turned out to be eight hundred words long. It ended up being strangely like a microcosm of the book.