

Student Writing Concerning the Book

Zen and the Art of Motorcycle Maintenance.

Second Year for Optional Reading: Fall 1998 and Spring 1999

V14.20

The fall 1997 started the second school year that reading the book *Zen and the Art of Motorcycle Maintenance* was presented as very helpful to improving physics learning, but optional. The resulting lower rate of “Zen Book” participation in the physics class this year may have come from the following factors: 1) The students and I were undergoing the transition to a new textbook. 2) My other teaching assignment also required a change to a new text edition. 3) The students this year clearly had less overall ability and motivation for study. 4) This year's class was much weaker academically, thus leading to continuing and expanding criticism of my teaching methods involving the Zen Book, reduced my enthusiasm and ability to promote this effort.

These circumstances reduced my usual out of class Zen conversations with the students. Likewise I was not able to continue the Zen Book Discussion Group as had been conducted in the previous two school years.

Despite these factors three students reported significant Zen Book progress in their fall semester weekly lab report books. These student Zen reports are presented in **Section A** below. One of these three students, SS, came to me at mid second semester with a plan: She was completing her second reading of the Zen Book and planned to write a book report on what she had learned. She requested a temporary return of her first semester lab report book, so she could use it as a resource in her intended effort. Shawna’s book report is in **Section B** below as well as my description of how SS physics performance improved in conjunction with her Zen Book reading. A real success story.

Near the end of the second semester of the 98-99 school year, two students wanted to know what they could do to improve their physics grade. They were offered a “full letter grade boost” if they would completely read the Zen Book and wrote a report on what they had learned from the book. Since I genuinely believe significant physics (and life) learning is contained in this book, the same offer was extended to the whole class during the last week of the semester. Their reports are all presented in **Section B** below. Original text will supplied on request.

This document is complimentary to and follows same outline and editing standards as two other companion documents.[1] A (nearly complete) collection of final exams and laboratory notebooks is available on request.

Section A. A Book Report Offered as Continuing Physics Class Zen Effort, Plus Student Zen Summaries as Appendix to Weekly Lab Reports.

Zen and the Art of Motorcycle Maintenance

SS Physics 202 ZMM Extra Credit Paper

This will not be a traditional book report. I know that you [Professor Gurr] have read *Zen and the Art of Motorcycle Maintenance* at least a hundred times, so I will give it my own critique and analyze what I believe is important.

The book tells a story of a motorcycle trip that is divided into four sections. Each section continues to build upon the other, tension wise, between Pirsig and his son, Chris. The trip begins with Pirsig, Chris, and Sylvia and John Sutherland heading out for a trip to the Pacific from Minnesota. They ride on back roads to avoid heavy traffic, with no set plans. Pirsig points out that riding on the motorcycle car, "You're completely in contact with it all. You're in the scene, not just watching it anymore, and the sense of presence is overwhelming" (4). This fact does not go unnoticed by Sylvia either; she points out that the people sitting in cars looked like they were in a funeral procession. I myself always drive via freeways because it is easier to navigate, but after reading this book I began to recall all of the traffic jams I have been in on my way to N.Y. and question my reasoning. Sure the freeway is easier but it can be dangerous being surrounded by unhappy motorists willing to do anything to shave off a few minutes.

At night the group holds discussions on their thoughts. One discussion in particular that caught my attention was when they were telling ghost stories and Pirsig tells Chris that he is being chased by a ghost of his own; Phaedrus. This was my first insight into his mental problems. He also hints that Chris is having problems of his own and tells the Sutherlands that he has the beginning symptoms of mental illness and is using the trip to connect with his son.

As the landscape changes I noticed that the moods of the travelers changed as well. The harshness of the environment is reflected in their attitudes and feelings. At their lowest point, the road unexpectedly changes by shifting upwards into the cool meadows of the plains, instantaneously happier feelings take over.

During their discussions in Montana, Pirsig has mental flashbacks. In reality, Pirsig is Phaedrus, and something terrible has happened for him to have blocked out large portions of his earlier life. As the trip progresses, more and more flashbacks occur as he begins to remember his past.

A conflict arises when they meet up with the DeWeeses. The tension is due to the fact that both John and DeWeese know a different man. John knows him as Pirsig while DeWeese

knows Phaedrus. Pirsig senses the tension and tries to put everyone at ease by admitting that he has changed a lot over the past years.

While assembling a barbecue grill, they engage in a conversation about technical directions. I found this squabble to be enlightening because it gave me a perspective that I had never considered. Pirsig points out that directions are written to give a person only one way of doing it and that the assembly is an art. I usually follow the directions; for example I just moved my computer which required me to reassemble it. The first time I did it I followed the directions and found them hard to understand or even to follow. While I was putting it together I took notes to help me do it again if I had to. Then my friend asked me to come help her setup hers. There were entirely different directions for each computer. It seemed to me that overpaid, overeducated people that write the directions have too much time on their hands and amuse themselves by finding the hardest way possible.

They now hit the road again, saying good-bye to John and Sylvia as they head home. Pirsig and Chris take a break from driving and go mountain climbing. Chris is hiking with one thing in mind, reaching the top first, while Pirsig is taking it easy and enjoying the moment and stopping to take in the view.

Pirsig urges Chris to slow down or else he will be weakened physically as well as spiritually. He tries to explain that the mountain is there so it can be used by climbers to reflect on their lives. Chris still doesn't understand and feels that he still has something to prove. Pirsig states "When you climb a mountain to prove how big you are, you almost never make it" (189). Chris' every step becomes harder and harder because his goal is to prove himself not reflect. I agree with his statement. When you look back at all of the dead mountain climbers, they were all seeking fame and glory and pushing themselves to the edge instead of reflecting on what is really important.

Both men try to work out their problems on the mountain. It is on the mountain where Pirsig starts having dreams about being behind glass, with the rest of his family on the other side. As they reach the top of the mountain, Pirsig gets the feeling that Phaedrus is waiting for him there. As soon as they reach the top, Pirsig gets spooked and they immediately head back down.

As the trip continues, Chris develops stomach problems, which eludes to the fact that he is stressed out because he wants to connect with his father but can't. The only person that Chris wants to be popular with is him [Pirsig] and since they both can't connect or even understand each other it is an ongoing struggle.

The final section of this book begins with the glass dream. Pirsig is on the verge of having a mental breakdown because he realizes that the dark figure keeping him from his family is himself and Phaedrus is returning. Pirsig decides to send Chris home and tells him, "You're looking at a father who was insane for a long time, and is close to it again" (367). He is so close to cracking that he feels he cannot take care of Chris any longer. Pirsig has a flashback and realizes that the glass door dream is not a dream and that it really happened. For all those years, Chris thought that his father did not want to see him. He did not understand that Pirsig could not and this is the cause of Chris' problems. Chris asks Pirsig if he was really insane and Phaedrus replies no. Pirsig realizes that Chris has been carrying him. Pirsig knows what to do; "...The answer is right in front of me. For God's sake relieve him of his burden! Be one person again!" (370).

The book ends with them hitting the road again and Chris standing up on the cycle and experiencing the world around them for the first time. Chris has his dad back and Pirsig has found himself.

I particularly liked the part when Pirsig says that; "The real purpose of the scientific method is to make sure Nature hasn't misled you into thinking you know something you don't actually know" (94). As a Biology Major I can relate to his thinking and know first hand how misleading Nature can be.

Although Pirsig wrote this book in the 1970's, its attitudes about how different personalities react to motorcycle maintenance can be applied to today's conflict of conquering the electronic frontier. John tries to escape technology because he does not want to run with the crowd, while Pirsig embraces it and is eager to learn all of its aspects. To me one should learn all about their possessions so if they break you could fix them without having to rely on a costly alternative. To me it has been a valuable learning as well as growing experience. I have learned to change to oil in my car, program my computer, and every chance I get I watch my dad tinker with our appliances.

Throughout the book, Pirsig examines quality. He says that quality work is not easy and the road to quality has many traps. I will end with the following statement made by Pirsig on quality work. He states that whatever you are building, "You have to have some feeling for the quality of the work. You have to have a sense of what is good. That is what carries you forward" (255). The book will be a good reference for when I lose enthusiasm or gumption for a project. I will reread this book in the future to better understand all of the concepts I missed the first time and to appreciate it more. It has taught me to look deeper for quality solutions by looking at the underlying form of whatever has me stuck (258). The solution does not matter as long as it has quality and it does not limit a person to do things in only one way.

Additional Notes by Henry Gurr, Physics Professor

SS was a Biology Pre-Med. Major who came into my class as an unenthusiastic student. She would do what was necessary to get an "A" grade, but her "heart was not in it". She avoided any extra work and showed very little keen thinking the entire first semester. As her physics professor, I could tell SS personally had a low interest in the ideas presented in the physics course and far as I could tell, this same lukewarm response applied to all of SS's courses at USCA. Never the less, in the fall semester she took on the extra work of reading "The Zen Book" (ZMM). She told me that her father had read this book, and she lead me to believe he had a favorable opinion of its contents. In fact she waited to start reading ZMM until her next trip back to New Jersey so she could borrow her father's copy. During the fall semester, SS read ZMM. What she was learning and thinking was recorded in regular reports as she progressed. During the second semester, I noticed that SS's interest in physics gradually increased, most especially in her Physics Lab Reports, where her writing chronicled an ever increasing willingness to learn and understand physics in a deeper and more meaningful way. Her improved performance remained high right to the end of the semester. This is quite remarkable since the end of the semester is when: 1) the subject matter of physics is the most difficult & abstract and 2) nearly all students are suffering from end-of-semester fatigue and 3) students are unable to maintain their normal performance. But not SS, at the end of

the semester, she found the energy and time to increase her physics performance and re-read much of the ZMM book and produce the above book report. Notice especially the last three paragraphs, which show the impact of the book on her attitude towards learning. Also notice the willingness to integrate learning (as ZMM suggests) into all of life: "I have learned to change to oil in my car, program my computer, and every chance I get I watch my dad tinker with our appliances". What Shauna has said in the above book-report has a direct correlation with her increased Physics Class performance. This can not be a random coincidence.

Zen and the Art of Motorcycle Maintenance

CP APHY 202 Spring 1999

In my reading of Zen and the Art of Motorcycle Maintenance I came across a statement that I strongly agree with. The statement reads: "The real purpose of scientific method is to make sure Nature hasn't misled you into thinking you know something you actually don't know." You do have to be careful when you are trying to figure out the way the world works (or the way anything works). You can't jump to conclusions, you have to look at all the facts and none of the assumptions or conclusions of others. I believe that this is what that quote is trying to explain and I totally agree with it. However, I will admit that it is easier said, than done. [CP wrote the above appendix in her Spring Semester lab book. Her end of semester paper (below) extends her ideas.]

Zen and the Art of Motorcycle Maintenance

CP 05-09-1999

Zen and the Art of Motorcycle Maintenance, written by Robert M. Pirsig, is a novel that covers the journey of a man that is in search of himself. The journey that the narrator takes in this novel is actually based on the life of the author. This novel is a very helpful and important for college students to read.

I want to start by saying that I can not possibly cover all of the topics or philosophical meanings of this book. If I did, this paper would be as long-if not longer than the book. Due to this fact, I have decided to focus on the topics that have had the greatest influence on me so far.

The first topic that I want to discuss is the author's philosophy on grades. This topic really "hits home" when you are a student. I interpreted the author's opinion of grades to be very different from most of the professors that I have met on this campus. Most professors believe that the grade you make is all that matters. They believe that an "A" student has a lot of knowledge and that they [were] taught all of the material that was covered in the class. However, the narrator believes that the grade is not the most important thing in a student's life. He believes

that the actual learning that takes place is much more important. I strongly agree with his opinion. I am very saddened by the fact that most of our society does not think this way. I am also bothered by the fact that I am in a field where grades are very important. I do not mind studying and working hard to achieve a good grade and I believe that A grade should be a reflection of the students knowledge. However, I also believe that a student's grade should also be based on how much effort and hard work someone puts into the class. For example, anyone can memorize how to do math, chemistry, or physics problems and make a decent grade in the class. A student that actually tries to learn this material, may not have as good of a grade as the other person that memorizes the problem solving process. However I believe that their knowledge is somewhat superior to the other person because they have actually tried to master the topics that were being covered. I also believe that any attempt to master the topic results in a further understanding of that topic. Granted it may not be a complete and total understanding of that topic, but is still a better understanding than the "memorizing" student. Therefore, I believe that the person that has tried to learn the material should receive a boost in their grade due to their hard work.

I believe that you recognize that, learning is more important than putting numbers into an equation. When I first spoke with you about this subject, I was very surprised to learn that you felt this way. I thought that all professors were alike. I believe that your opinion is much superior to theirs because you care about us learning the material. I can speak for myself when I say that I have put a lot of effort into this class and I have developed a good understanding of what physics is all about. I am very glad that I focused on this more because I now have a better understanding of how the world works around me.

The next thing that I would like to discuss is the narrator's visions of Phaedrus. When I was first beginning to read this novel, I was very confused about this subject. I could not figure out who or what Phaedrus was. However, after further reading the novel I began to realize that Phaedrus was an actual part of the narrator. The narrator was actually a victim of a nervous/mental breakdown and Phaedrus is the part of him that was lost after the mental breakdown. (Another way to look at it is to say that Phaedrus was the man that the narrator was

before he had the mental breakdown). I believe that this happens with any person that has experienced this. These people are forced to stop and critically evaluate their life and lifestyles. They then come to the realization that there are better ways to handle and look at life. The narrator of this book has a wonderful way of handling and looking at life. I must be honest and admit that I do not believe I would have never thought about life the way that the narrator does, if I had [not] read the book. I believe that you know this and that is one of the reasons that you have suggested that we read the novel.

The third and final topic that I want to cover is the topic of life. In the afterward, the narrator speaks of his son's murder. He wonders what it is that makes him miss Chris so much. He discovers that it is not [the] physical materials that Chris possessed or his physical body. Instead, he misses what we refer to as his "spirit." The narrator missed the personality and the thoughts of Chris. The reason that the narrator was so heartbroken was that he missed the words and actions of Chris. Without the body of Chris, there to perform these actions it was very hard for the narrator to deal with his son's death. However, I believe that the narrator realized that he did have the memories of Chris to cherish and that this helped him deal with his son's murder. I also believe that the birth of Nell helped the narrator deal with Chris' death. Nell was a reflection of Chris and therefore, simply put another Chris that could bring happiness to the narrator's heart.

I really enjoyed reading this novel. It has shown me so many things. It has shown me how to deal with school, death, how to work hard, and how to examine my life so that I can have an inner piece-of-mind. I am very grateful to you for recommending this novel to me!!! I will keep this novel and refer back to it throughout life.

Zen Reflection.

JL APHY 202 Spring 1999

"Quality. . . , you know what it is, yet you don't know what it is. But, that's self-contradicting. But some things are better than others, that is, they have more quality. But when you try to say what the quality is, apart from the things that have it, it all goes poof! There's nothing to talk about. But if you can't say what quality is, how do you know what it is or how do you know that it ever exists."

This section intrigued me because it raises an unanswerable question about today's society. Quality is today, a standard that many people seem to attach to things already accepted as such. It (quality) can become synonymous to anything that is in a field with competitors. In the past, Renaissance England, the writer Christopher Marlowe's work was classified as having more quality than his lesser known counterpart, William Shakespeare. As years passed, this thinking was reversed. Quality, although many times justified, can be associated with things that we are exposed to more after[wards]. The point made in the book, "how do you know what it

is", is a good point when considering the thinking of today's society. Quality can be fleeting in a world of conformers, whereas excellence can be judged by actions and results.

Zen Reflection [Continued Later].

Upon getting through chapter 16 of Zen, I came across some very interesting writing. I constantly think of how it is a shame that the concern for one's grade can overshadow the concern for one's personal learning. It seems most often, even with me, that students think too much about the grades that they are making. This takes away from the real meaning of learning. As you wrote to me once, "proper learning produces good grades, not vice versa." Though I still have an apparent concern for my grades (because medical schools judge applicants by them) I have constantly concentrated on trying to put the concern for my grades in the back of my mind while putting the concern for learning in the front. Though this sounds easy to do, it isn't, because society has developed this grading system so that we may be judged relative to our peers. Concluding, I have heard you make mention of the "knowledge motivated person." This is the type of person I am trying to condition myself to be for knowledge is power and satisfaction.

Zen Reflection [Continued Later].

I just wanted to take this time to thank you for the abundant personal growth that you have provided me with during this year of physics. Not only have you taught me the physics behind our working world, you have taught me more about myself. Most of this can be accredited to you and to Zen. I fully intend on finishing the book this summer. So far, I have been very pleased with the reading. I have suggested it to many other people, so that they may share the same experience.

I want to thank you for always having faith in me and in my ability. Sometimes when you "get down in the dumps" it's good to hear someone encourage you.

I could go on writing for days as to how much you have benefited various aspects of my life, but I will like to conclude by saying thanks. I definitely plan to keep in touch in the future for I am sure that you can help me in some way that I may not realize now. Please stay in contact. I'm in the phone book and I will help you any way I can.

Section B. Zen Book Reports Written at End of Second Semester.

DS

Physics 202 - Spring 1999

5/9/99

What I got out of the book *Zen and the Art of Motorcycle Maintenance*.

The book *Zen and the Art of Motorcycle Maintenance* proved to be for me a real eye-opener, in several different senses. Some of the things mentioned in the book were things that I knew were true, but had never really thought of until reading it here. Other things were new twists on ideas that had once crossed my mind, while still others were completely new ideas.

Most of what I got out of this book was in the first few chapters. I decided upon reading this book that the journey that the father and son are on, is meant to represent the journey of life. It suggests that one should not lay too many definite plans for the "journey" and the roads that should be taken are the ones that will enable you to see and enjoy more diverse experiences. This is why they traveled on country roads for most of the time; they got to experience more than being on a highway would have let them. It also suggests that people shouldn't be in a hurry to live or do something; they should slow down and enjoy life. In addition, it suggests that sometimes you just need to get away from it all and "rough it" every now and then, in the name of personal growth and self-improvement.

One such thought came to mind when I first started reading the book. This was the portion of Chapter I where the father is riveted by the sight of a blackbird, but Chris is not. The idea here was that when one is young, they aren't as excited by something "ordinary." I guess I still don't quite understand it; it will probably make more sense when I'm older and have experienced more.

Another part of the story that I got something out of was that it doesn't pay to get upset over little things, and if something is upsetting or irritating you, take the time to figure out what is wrong and how it can be fixed (and do this somewhere other than the work site; otherwise your judgment could be clouded by frustration). This refers to the parts of the book that discuss Sylvia's reaction to the dripping faucet as well as the part where a panel on the motorcycle is being blocked by a stuck screw. I had been in a similar situation once before, when I was trying to wire a new radio into my old car, and found my work blocked by a knob that wouldn't come off. Part of me wanted to grab some bolt cutters and break it off, but I decided against it after I backed away from the job for a while (I did eventually finish the job, and I didn't even need to remove the knob after all.)

According to the book, it is this kind of situation that often calls for the use of the so called scientific method, involving hypothesizing, working through a certain procedure, and analyzing the end results. It also suggests at another point in the book that one should take notes (log book) of the entire process as he or she does it. I have done this numerous times for school science projects, but will admit that I have virtually never done this outside of school, since I didn't

understand the value of it at the time. Slowly I developed the notion that it helps to do this, but I gained a new insight and appreciation for utilizing the scientific method in everyday life after having read this book.

Perhaps the one idea from the book that stuck with me the most after reading it was the one that stated that quality is not an absolute thing. People understand it, but they cannot explain what it is or what it is about. Quality means something different to everybody, and the context in which it is applied varies dramatically from one thing to another.

For a long time, I had been thought that quality was practically an absolute idea, or that there were definite factors that defined the existence or lack of quality in something. After having read this book, I now see quality as a very indeterminate entity, one that is not absolute, but instead is totally relative. Quality is subjective, not objective, and something that may not have quality in one person's eyes will in another's. Now that I think about it, this was one of the main factors in my long-time difficulty in school: I considered most of my writing assignments to be high quality work, while my teachers (and parents) did not. I have less trouble with that now, since I have gained a better understanding of what quality is as far as the academic world is concerned. Despite all of these experiences, I never once even considered the possibility of quality being relative.

Also pertaining to this statement regarding quality is the part where Phaedrus describes what the world would be like if quality did not exist. I found this part of the story to be extremely fascinating, since I had never considered what life would be like without quality and it is not a very desirable world, at that!)

Speaking of relative, another aspect of this story that stuck with me was the one that stated that the theories and laws of science that we have accepted over the years are nothing more than human inventions. I had never thought of that before! The idea that what everything in our world is could be nothing more than just the result of human description was something that was completely new to me. Now that I have thought of this as the truth, it makes me wonder about what objects and ideas would be known as today, had the original ideas for the names never come around. It can even be regarded as "human arrogance" since the ideas for certain laws and objects were invented long after the objects or ideas first came around, and people take no notice as to what these things were beforehand

The entire portion of the book in which the narrator concentrates on the struggles of "Phaedrus" yielded a number of interesting insights into both the world of academic thought and into life in general. Perhaps the most compelling lesson that I learned in this portion of the book is that originality is often not valued or accepted in life, even if your slant on something happens to contain something that makes sense. Everyone regarded Phaedrus' views as highly unorthodox, and some considered him to be dangerous as a result. This all goes to show that history can, and often does, repeat itself Many ancient philosophers had similar methods of thinking, some like

Phaedrus did, and most of them paid a heavy price for proposing these beliefs to the outside world. The implications of this story yield an unfortunate outcome in life, one that I feel must be overcome. People should be more tolerant of new ideas or theories, or it can have a catastrophic outcome, which in this case was the arrest and removal of Phaedrus from society for being "insane". This all goes to show how one may have to overcome some formidable obstacles to realize their beliefs, and when beaten down, it can cause emotional injury in him or her.

The motorcycle in this book is a metaphor for one's self, and maintenance refers to the process of taking care of and improving of this self. As the father and son travel, they learn not only about the actual motorcycle itself, but also about themselves as well. Here they put to practical use the principles of quality, science, and art in operating not only the motorcycle but themselves as well. As a result, they both gain a lot of insight into their personalities, the cycle, and the world as well. I learned from this fact that as you learn about the world around you, you also (and maybe unknowingly) learn about yourself and how interact with the world you live in.

This was yet another idea that I had never thought of until reading the book. At the end of the book, when Chris asks if he can one day have a motorcycle, it shows how much he and his father have learned about each other and themselves during the long trips together. I agree with the father when he says that you need to have the right attitudes to have a motorcycle, because having a good attitude about anything is necessary for getting on with life and enjoying it.

These are the most significant things that I got out of the book; there were others as well that I found to be interesting, while not quite as prominent. As I mentioned previously, many of the philosophies mentioned in the book were ones that had crossed my mind at one time, yet many did not stick until I read the book. The lessons from this book are definitely ones that I will remember for a long time, and I will definitely make use of them in life: **The Art of Maintaining my Motorcycle.**

Zen and the Art of Motorcycle Maintenance

AV Physics 202 May 10, 1999

After completing this book, I really began to understand why you insisted that we read it. It put life, learning, and expanding oneself into perspective. I think that the desire to learn is an extremely important part of physics and realize why such great emphasis should be placed on it during class.

For instance in the book *Zen and the Art of Motorcycle Maintenance*, written by Robert M. Pirsig, the value of riding on a motorcycle is explained. He says that if you are in a car, it is [not] as if you are looking out the window, but onto a TV screen and you don't get the actual feel of life and nature. However if you are on a motorcycle, you are in tune with everything and anything can happen. I think that this relates to our physics class because you have two decisions in this situation. Either you can go through the motions of the class (i.e. the car), or you can actually understand what you are really trying to accomplish with the problems that you are solving (i.e. the motorcycle). I think that actually understanding the concepts behind the work is very important because it allows you to broaden your knowledge of the world. It, in a sense, makes you more of a "renaissance person".

Another important point that Pirsig makes is about road maps. I used this as an analogy to our [Physics] book and the step-by-step examples that we were supplied. Although it came earlier in the novel (p. 5) I really thought that it was applicable in this essay. He states that

"If you are going northeast from a large town you never go straight out of town for any long distance. You go out and then start jogging north, then east, then north again, and soon you are on a secondary route that only the local people use. The main skill is to keep from getting lost."

I think that what this means when applied to physics is in the beginning, you must follow the directions in order to stay on track. However, as soon as everything clicks and a "flash of insight" occurs, one will be able to use different applications to derive formulas and solve problems. For instance, when you showed us how to derive a formula that involved many equations, a person who had had the "flash of insight" would be able to pull [i.e. choose] the equations that were applicable to the situation. This is what you wanted us to be able to do and is something that I think is important, but only came [was achieved] for certain people in the class. This was a problem for our class, because there were those people who were able to take the shortcuts, per say, but there were also those of us who definitely needed to take the longer route in order not to get "lost".

Another point that you made with me, that I thought very valuable, was not wanting to understand and not being able to understand. I didn't realize it, but this also was mentioned in the book. The narrator is discussing the value of motorcycle maintenance with a couple that he knows, and they totally disagree with him about the worth of taking care of your own bike and not paying someone else to do it. He is frustrated with them, and realizes that they just don't want to understand his point of view, it is not that they are not capable of understanding it. Then

he realizes that it is the technology that they do not like and he believes that it is "self-defeating". I think that often you get frustrated with us because we do not take the time to try to understand what you are saying, rather we just get frustrated with the class and ourselves. I have to admit though; physics is an intimidating class with many principles that students have not seen before. It is the "technology" that the couple was so afraid of. I think that sometimes in these situations we would rather just avoid the inevitable rather than try to tackle it head on. This is because we are both lazy and think that it will take too much time, or we think that we will never be able to understand at all. It is hard once you are already behind in comprehending to try to catch up in your learning. Even Pirsig states, "It's all parts and relationships of unheard-of things that never make any sense no matter how often you hear about them." I think that this quote is true, especially when you think about how difficult it is trying to learn something that builds upon an earlier thing that you did not understand already. But, it is not impossible, and this is the message that Pirsig tries to relay in his novel.

This book is about taking in all that you can while you are able because you just never know. This means that we should open our minds and try to soak all the knowledge around us that is humanly possible for us to do. You are the first teacher that has really stressed these points to me very adamantly, and it is something that has had a great impact on me and that I will do my best to apply to my life from now on.

AD Dr. Gurr's Physics 202 Sunday, May 9 1999

My Zen And The Art Of Motorcycle Maintenance experience began last semester at the start of Physics 201. Dr. Gurr suggested it as an optional reading and said that it would enlighten our lives. This was an understatement. My Zen experience began long before page three in the book. My Zen experience began when Robert M. Pirsig stated "The real cycle you're working on is a cycle called "yourself." He elaborated by saying that "The study of the art of motorcycle maintenance is really a miniature study of the art of rationality itself. Working well, caring, is to become part of a process, to achieve an inner peace of mind. The motorcycle is primarily a mental phenomenon." My interpretation of this novel was much more than that, I saw that the novel represented change and strength in the face of adversity.

Two of my favorite quotes from the [cover at the] beginning of the novel are "It Lodges In The Mind As Few Recent Novels Have ... The book is inspired, original ... As the mountains gentle toward the sea -- with father and child locked in a ghostly grip --the narrative tact, the perfect economy if effect defy criticism... The analogies with Moby Dick are patent. Robert Pirsig invites the prodigious comparison... What can one say? " This first quote caught my attention quickly for this book to be compared with a phenomenal novel like Moby Dick with its amazing analogies of good versus evil stimulated my mind to see comparisons between reality and the novel more easily, maybe a little too easy, but you can be the judge of that. The second quote that I found as wonderful and delightful as the first quote was "A Journey Toward Awareness and appreciation of the world and of one's special place in it ... A valuable how-to-do-your-life almanac." This quote was a immensely helpful prelude into the book and what its contents would be about. I agree that this was a journey toward awareness and appreciation of one's special place in it, but I do not agree that this should be used as a guide for everyone to find themselves. Just because this is the method that worked for Robert M. Pirsig, doesn't mean it should be a guide for living for everyone. I suggest that everyone read this book then go in search of his own path to finding that special place. We should use this book as insight to know that some one has been there before and that we are not alone as Robert M. Pirsig was not alone on his Journey. This book should be used as a beacon at your bleakest hour. And with that last statement I welcome you into my Journey in Motorcycle Maintenance.

Robert M. Pirsig began this novel with an analogy of the weather he says "I can see by my watch, without taking my hands from the left grip of the cycle, that it is eight-thirty in the morning. The wind, even at sixty miles an hour, is warm and humid. When it's this hot and muggy at eight-thirty, I'm wondering what it's going to be like in the afternoon." These statements let me know that a lot of changes happen in his life on his journey. The change in the weather is representative that nothing is stable on his journey through the country. He also lets us know that change has occurred, because he reminisce that the highway is as old concrete two-laner that hasn't had much traffic since the four-laner went in parallel to it several years ago. This shows his objection to change, but his taking these back roads also shows that he appreciates everything in life and takes his time setting his own pace instead of following the fast pace set by society (freeway four-laner). He farther lets us know that this is the situation by stating that "Secondary roads are preferred." He informs us the order in which he likes the roads --- remember the roads --- to me represents the many stages of your life and the speeds at which you choose to take them, "Paved county roads are the best, state highways are next. Freeways are the worst." Here paved county roads represents the adolescence stage of our life, when everything is carefree, fun, and worry free. State highways represent when everything is new, our late teens early twenties, these new experiences can be falling in love for the first time or your first alcoholic beverage, and lastly freeways are our worries, pains and heartaches.

In the novel the red-winged blackbird represents the special times that we have with our loved ones in addition to our hopes and dreams. I say this because, it seems that it [singing birds] always appear at the points when he is reminiscing or he tries to imprint an important point to us. The bird is much more though because he wants his son to see it but his son says that he has already seen it, meaning that he has already lived the event once and

does not care to relive it again. This to me says that his son is moving toward that fast pace life while his father is stuck on the slow paved county roads and is trying to keep his son there with him. (Not wanting his son to grow up and become one of those people they see with gloom faces on the way to work on Monday morning.) The blackbird shows that it is people's hopes and dreams when he tells Sylvia to look for them on their journey and she calls them daughters. My analysis of the statement is that Sylvia longs for something that her husband is not giving her and the blackbird represents what she maybe able to do to repair the drift. In the novel checking the gears of the cycle is like checking the relationships that we have built in your life time. As we all know every relationship requires that we spend some time oiling its gears to keep it running smoothly, and if we don't we lose touch with the person or have an explosive argument after all the hostility and resentment has built up. What I think that Pirsig is trying to say is that some of the best relationships end, due to our lack of attentiveness, effort, and concern for the other person involved. He lets us know that the gears represent our relationships by using John and Sylvia as an example. Pirsig says that every time he tries to discuss the maintenance of the motorcycle with either one of them they just space-out or change the subject. He goes on to say that they [would] rather let a competent mechanic (marriage counselor) take care of it. John and Sylvia feel that they don't need advice from their friends on how to live their lives together, they feel more comfortable taking advice from a trained professional.

In the novel Robert M. Pirsig uses numerous analogies for the different parts of the motorcycle to mean different aspects to ones complexity as a person. Certain aspects that he mentions (the valves, shafts and wrenches) are the aspects that John and Sylvia are the adamant about not discussing. For me this was the meat of their problems. They didn't know it but for an outsider looking in it was obvious that there were problems occurring and not just with their bike. At one point Pirsig reminisces about how John over floods his engine and does not know how to solve the problem. John swears that he is doing the job by the manual but doesn't realize those instructions are for when the engine is cool. The first time [at first] Pirsig offered advice and informed John of his error, but John continued to do it his way. So the next time it happened Pirsig went and sat in the shade while John and Sylvia tried to work out the problem.

In closing, *The Art of Motorcycle Maintenance* is an story of the lives of people and how they choose to maintain its mechanics. The novel repeatedly shows that different people handle different situations in different manners; just because they don't handle their machine as you would yours, does not make their method any less valuable than your own. The over-all message of this book is to lend a hand when asked but do not force your opinion upon anyone. It also lets us know that with the proper attention we can get through any trial or tribulation that is set in front of us. Pirsig lets us know by showing the "breakdown of the motorcycles" part that we are truly an complex individual with many faces and aspects to be learned, and without proper maintenance a breakdown will occur.

He is trying to tell us to slow down our pace, take the time to stop and smell the roses, and not to let life pass us by without noticing the little things. Being in a hurry does not get

anything achieved. Which is what Dr. Gurr has been trying to show us all year, from us doing the

star project to us doing [assembling] our multi-tester. Before the star project I was always too busy to stop and look at the night sky, but with Dr. Gurr's help I found something that was truly amazing and was able to see the planets [move] in and out of view. And just Sunday morning while watching the sky I saw a shooting star for the first time and it was a truly amazing experience. I know now that unless you take your time to do it right, nothing has occurred, not even learning. Now I understand why grades should not be important to a true student. Learning should be the best reward for us. I would like to thank you Dr. Gurr for all your help and helping me to see the true world.

[At the end of the school year, Avis told me she had come into physics with the plan to study no more than needed to get by, and that the Zen book had helped her to become motivated. As the fall semester progressed I observed really began to "dig in". Despite the fact that she came into physics with a math/science background way behind her classmates, strenuous efforts helped her keep up. She began to actually learn meaningfully, and this helped her increase her motivation to "really learn. Her lab report book bear witness to her continuing improvements. Quite a success story.]

Zen and the Art of Motorcycle Maintenance

BW APHY 202 Spring 1999

The title is kind of catching, but the book is not really about motorcycle maintenance. The book is about life, and to think of life as a book. You close one chapter in life, just to open up another. The book is structured and written for everyone to get their own meaning from each word and how it pertains to life.

The book is about this man's son, and a married couple. They are on this journey and he explains what he sees, interests, and the relationships to life of each and every experience. Also, do not judge things or people unless you completely understand. The book goes into the strong relationship of book sense and common sense. Also, to succeed, one needs a mixture of both. Each page has a double meaning and the relationship to life.

This book basically states that life is a highway. You do not know what is coming around the next corner and one needs to be prepared. Even though one can't always expect the unexpected factors in life.

Life is so complicated and fast, people need to "stop and smell the roses" and get back to the basics of life. Deal with the major [obstacles and problems] and once they are at a point of being minor, then deal with the minor things until they are no longer a problem. Life is too short to let things go to waste worrying about things that you really can't control. People should observe what is in their surroundings, because they may not be there tomorrow. A minute of observation may have an everlasting effect on one's life. The way things are changing today, one may just miss out.

Every person has a story. One could learn a lot about people through their facial expressions. The face tells people about their day or even life. People have a tendency to allow little things to ruin their day and life is too short to lie down. So, take some things with a grain of salt and put a smile on your face and live life to the fullest.

People are afraid of what they don't know or don't want to know. People became afraid of their lack of knowledge and some people don't have the confidence of trying to do things that they could learn. The more one learns, the more it benefits you and others. As the knowledge increases, the confidence does too. As the confidence increases, the more one will be willing to do and try. Ignoring the knowledge increases ignorance, and ignorance increases tension. It is good to be an expert in something, but it makes a better person if one understands many things compared to just one thing. The old saying is, practice makes perfect because the more time you do something the better you get and it increases the understanding of what is actually taking place. Some people have the tendency to ignore something if they don't understand it. Ignoring things shows a person's lack of enthusiasm and their laziness. Laziness can't and will prevail if one doesn't care and do something about it. (Laziness seems to be the downfall of the younger generation. Life has the tendency to do that, because it is the generation of laziness. People are becoming lazier by, in some respects, to technology. It takes 100 times more energy to change the channel of the TV than it does just by pushing a button and allow technology to do it for you.) Knowledge makes for a better well rounded person.

The key to life is success. Success is measured by your achievement and understanding of life. Measure your achievements one at a time. You are a product of your understanding of life. Life is what you make of it and how one deals with the obstacles for every action there is an opposite and equal reaction. Don't be a passenger of life, be a driver.

Zen and the Art of Motorcycle Maintenance is a book of little value of motorcycle maintenance, but a great value of life. It shows us how to perceive life, the value of knowledge and the understanding of people. The book really wants the reader to understand that life possesses so many opportunities, only if we want it and are willing to go after it. The author, Robert M. Pirsig, utilizes the words in every way to produce and understand how to increase the efficiency of life. The author is, by far, a great understander of life. He produces the way life should be and how to create the most happiness for oneself. The author doesn't use any grammar tricks to induce confusion, but stays simple so that each reader will get something out of it by representation. The Praises at the beginning of the book state that this is an exceptional and comprehensible book on life.

To me, as a reader, I could not believe (while I was reading) all of the old sayings were coming to my mind such as: life is a highway, stop and smell the roses, every person has a story. There were a few more that are not coming to mind, but this book composed them all together and really makes one think a little bit deeper into your own life. To see that your life needs the improvement and it is time to do it.

Zen Critique

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Throughout this book, the author conveys very important philosophies about life and how one should live it to the fullest. The book starts with the author and his son Chris on a motorcycle trip with two friends. He allows the reader to realize that by traveling in a car, one misses the "real" experience of the trip. I believe that the author is using this as a metaphor about life in general. If a person goes through life closed minded, they miss the true essence of life (i.e. the motorcycle ride allows the person to experience the entire trip, while riding in a car prevents this.)

In one scene, the author is speaking to John Sutherland, whom is traveling on another motorcycle, about the maintenance of his "motorcycle." He tells John that he must learn how to maintain his own "cycle" and not depend on others. His point, I believe, is that a person must take care of himself emotionally, physically and spiritually, because no one else will care enough to do so.

The author introduces Phaedrus and the basis of his beliefs in Chapter 6. He states that humans are divided into the classical and the romantic. "A classical understanding sees the world primarily as underlying form itself A romantic understanding sees it primarily in terms of immediate appearance" (page 61). Romantics follow the arts while the classics follow science. Phaedrus believed that the "trouble" starts when people refuse to accept the other mode. We again, must be open-minded and determined to learn all that is around us for this is the only way to truly benefit from all in life.

The book refers to Phaedrus' "knife" which is used to divide the world into various categories where "...the process of subdivision and classification ... goes on and on" (page 69). Again, there were two ways to interpret these categories: classical and romantic. Phaedrus devoted his life, even though many considered him insane, toward uniting the two modes of reasoning. He believed that a superficial understanding of the world was not enough. He thought that by integrating the two, people could more easily see the deeper meaning.

The author is the reincarnated Phaedrus. This is his reasoning behind carrying on Phaedrus' "ghost." "Phaedrus spent his entire life pursuing ... the ghost that underlies all of technology ... modern science ... and Western thought" (page 71). The author sees with Phaedrus' eyes and feels with his hands. This is the root of his determination of spreading his ideals--the ideals of rationality. The author continually tries to teach John, along with his readers, that the actual maintenance of a motorcycle is more than working on parts. Its working on concepts which allow an individual to grow and expand toward "precision." He also points out the hierarchy of a motorcycle--how each component can be broken down into some other subdivision. Every occurrence in our daily lives can be categorized and broken down into these subcategories known as the hierarchy which composes the "system."

Throughout his life, Phaedrus chased "ghosts." The word ghost refers to our human mind. Phaedrus believed that every aspect and idea of life, both physical and mental, was made up in the human brain. Without this interpretation, nothing could be understood.

The author has introduced us to hierarchies and the two ways of understanding--classical and romantic. Now he wishes to introduce us to logic, both inductive and deductive. Inductive logic

comes through learned experiences while deductive logic results when knowledge about some subject is used to predict another occurrence. The idea of the scientific method is used to integrate both inductive and deductive reasoning. This approach is the only way to come to a full conclusion on how something happens. A true scientist uses a lab notebook in which he records every observation in order to reach a conclusion. The entire point of having these scientific steps, according to the author, is so that one can be certain that nature has not misled them to believe one way when the actual underlying form is another.

Phaedrus studied science, and like any other field, one must be determined and love what he is doing from the heart in order to be successful and fully utilize their knowledge. I found it interesting that the author referred to the history of science as "...a clear story of continuously new and changing explanations of old facts" (pages 100-101). This statement is true even in modern society as, for example, doctors strive to cure age-old diseases. The author teaches, as Phaedrus would, that our society must overcome its inability to rationalize and reason, by integrating both the artistic romantic and scientific classical modes of thinking. Until this rationality is accomplished, our world will continue to experience crisis. Phaedrus did more than just read a problem. He noted doubts and questions to be resolved later as he went along.

Phaedrus is introduced to us as being an empiricist: "...the idea that the entire world is within one's own mind..." (pages 115-116). Therefore, as the author states, "...nature and its laws are all creations of our own imaginations..." (page 115), like the idea that parallel lines never cross. Hume and other contemporaries of Phaedrus, taught these same ideals ----- one's understanding of an object comes from their senses of that object.

In Chapter 24, page 247, the author makes an extremely important statement: "...care and Quality are the internal and external aspects of the same thing. A person who feels Quality and sees it as he works is a person who cares." If more people cared, our society would become a better one.

In conclusion, I gained valuable knowledge from the book. However, at times the dialogue of the text was somewhat wordy and confusing to understand. As far as how to approach problem solving and interpret the world around us, the book proved valuable. It leads you into a direction of thinking that could not be reached alone and offers an "inquiry into values" of life that can be used daily to enhance our education.

What I learned in Physics AY APHY 202 Spring 1999 Dr. Gurr

Throughout the past year, I have learned many things through taking Physics. I have not only learned about the concepts of physics, but have also been exposed on how to see "the bigger picture" and pull all of my knowledge together.

Last semester, we were able to do the star project (which I greatly enjoyed) in order to learn the positions of our constellations during different times of the year. This project has allowed me to gain knowledge about my universe that I can recall from now in. This skill, along with our map drawings, allowed me to also gain very valuable navigation skills.

This semester also gave me the chance to further my education in many ways. For example, by assembling the voltmeter, I now know first hand how the instrument and its components work. I also learned how to solder joint, the iron must be at the right temperature.

Along with learning about the constellations, I was able to learn about Newton's Laws this year. Newton's laws can be applied to every aspect of our lives, from the planets down to a single atom. By learning the Bohr theory, we saw this relationship because Bohr used $F=ma$ to derive this theory.

We were also able to learn about the different lenses and how each type helps a certain vision loss. Again, these are practical ideas, but will better improve a person's understanding of the world around them.

Furthermore, I have learned to search for a deeper meaning in life. I have realized that there is more to something than just a superficial appearance. We as students must strive to find these deeper meanings and accumulate our knowledge of these subjects. It is merely not enough to memorize enough to get by. If we are to receive the full benefit of our education, we must strive to accomplish these goals.

In conclusion, by having completed Physics, I have learned these things. I have learned many valuable skills which will carry me through my life as well as enhance its quality. By striving to better recognize the meanings of any of life's subjects will only prove to make me a better student and person.

[1] See document: *Student Writing Concerning the Book Zen and the Art of Motorcycle Maintenance. Fall 1983 thru Spring 1996*. Also see similar document for Fall 1997 and Spring 1998.