We've been talking about the early agriculture in the near east, let's concentrate on one site and see what we can learn from it.

Let's ~~talk about~~ look at ~~ChataHuyak~~ Catalhoyuk, umm, I~~'ll~~ ‘d better write that down. CH, that's about as close as we get in English. It's Turkish really. ~~That's~~ The sites in ~~the~~ modern day Turkey and who knows ~~where~~ what the original one inhabitants ~~scope~~ called it.

Anyway CH wasn't the first agricultural settlement in the near east. But it was pretty early settled about 9000 years ago in the neolithic period. And the settlement, a town really, lasted about a thousands ~~of~~ years, and grew to a size of about 8,000 or 10,000 people. That ~~herdlly~~ certainly makes it one of the largest towns in the world at that time.

One of the things make~~s~~ the settlement of this size impressive is the time period. It's the neolithic, remember? The late stone age, so the people that lived there had only stone tools, no medals. So everything they accomplished like building this town, they did just with stone~~s~~, plus wood, bricks, that~~'s all~~ sort of thing.

But you got remember that wasn't just any stone~~s~~ they had, they had o~~u~~bsidian. And ummm, o~~u~~bsidian is a black, volcanic, well, almost like glass. It flakes very nicely into really sharp points. The sharpest tools of the entire Stone Age were made of o~~u~~bsidian. And, ummm, the people of CH got theirs from further inland, from Central Turkey, trade ~~it~~ for ~~them~~ it, probably.

Anyway, ~~where~~ what I want to focus on is the way ~~of~~ town was buil~~d~~t. The houses were all rectangular one storey made of ~~some~~ sun dried bricks, but what's really interesting is that there are no spaces between them. No ~~sub-strips~~ streets in other words. So generally no doors on the houses either. People walked around on the roofs and entered the house through a hatchway on the roof, down ~~with~~ a wooden ladder. You can still see the ~~diagno~~ diagonal marks of the ladders in the ~~plasture~~ plaster on the inside walls.

~~When she walked~~ Once you were in the house, there may be one main room and a couple of small rooms for storage, the main room has a hearths, for cooking and heat. It would’ve been ~~will be~~ pretty cold during the winters. And umm, it also looks like ~~there may the~~ they made their tools near the fire, ~~their intensity~~ There tends to be a lot of obsidian ~~them sitting in~~ flakes and chips in the hearths ashes. But no chi~~e~~mney.

the smoke just went out the same hatchway ~~the~~ that people used ~~to~~ for going in and out themselves. So there would~~n't~~ have been an open fire inside the house with only one hole in the roof to let the smoke out. You and I ~~will~~ would find it a ~~little~~ bit too smoky in there. You can see on the walls which they ~~plastured~~ plastered and decorated with paintings. they ended up with a layer of a black ~~sutangism~~ soot on them, and so did people's ~~slangs~~ lungs.The bones found in the graves show a layer of ~~suit~~ soot on the inside of the ribs. And that's another unusual feature of CH, the bur~~r~~ial sites.

The graves have all been found under the houses, right under floors. And it maybe this bu~~r~~rial customs that explains why the houses were packed in so tightly without streets. I mean you might think it was for protection or something but there has been no evd~~i~~ence found yet of any viol~~ae~~nt attack that would indicate that kind of danger. It maybe they want to live as near as possible to their ancestor's graves and be bu~~r~~ried near them themselves, but it makes a good point.

Based on ~~some next vations~~ excavations, we can ~~also~~ know the layout of the houses and location of the graves, but we were only guessing when we tr~~y~~ied to say why they did that way. That's the way ~~of~~ it is with archeolog~~h~~y. You ~~will do~~ are dealing with the physical remains the people left behind. We have no sure access to what they thought and how they felt about things. I mean it's interesting to speculate and the physical ~~arche facts~~ artifacts can give us clues. But there's a lot we can’t really know.

So for instance, their art. They painted on plastered walls, and umm, usually they painted ~~on~~ hunting scenes with wild animals in them. Now they did hunt, and they also raise cere~~i~~al crops ~~to catch~~ and kept sheep. But we don't know why so many of the paintings are of hunting scenes. Was it supposed to ~~We supose to~~ have religious or magical significance?, that's kind of things that we can ~~do.~~Only guess at ~~that~~, based on clues, and hopefully, further excavation of CH will yield more clues. But ~~more~~ we’ll probably never know for sure.

In today's discussion, we'll review the case study on how some animals have behaviorally adapted to their environments. Now you had to read about two animal species, the eastern marmot and the Olymic marmot.

Marmots are ~~rotens~~ rodents, ~~their~~ They are large ~~grand~~ ground ~~squarriels~~ squirrels about the size of an average house cat. And they live in variety of habitats. And....even though they spend a signific~~e~~ant portion of the year hibernating, according to this case study, marmots are still considered excellent subjects of animal behavioral studies. Why is that?

Well ~~while~~ when they are not hibernating, you can find them in open areas, and they are pretty active during the day, which made them easier to observe, right?

So first let us to discuss the eastern marmots. They ~~was lie~~ reside throughout ~~wild~~ the eastern region of north America, ~~with~~ where there's a ~~temporary~~ temperate climate. With the growing season lasts for at least 5 months of the year, which is when they do all their mating, playing, and eating.

OHH, I see. At first, I wasn't sure what the growing season meant just from the reading, but now I get it. It's the ~~month~~ amount of time ~~to~~ it takes for them to grow right? So, it would be 5 months?

OHH, I'm sorry, but no. It ~~is~~ has nothing to do with that. It's not about the time it takes for eastern ~~the~~ marmots to grow. It's when the food are available. That is when ~~that~~ it is not covered in snow and there is no fro~~a~~st covering the grass, and ~~vegetate's~~ vegetative parts of a plants’ , herbs, and the flowers ~~that~~ the marmots like to eat. So growing season refers to the ~~eatvilability~~ availability of the food they eat. Okay?

So now, how ~~do~~ would you describe the eastern marmots' social habits? Well, they're very territorial, and ~~lonars~~ loners, and just so~~mehow~~ aggressive, even with other eastern marmots. And their mating ~~ratio~~ ritual is just so...impersonal. Now when ~~the emergence of~~ they emerge in the Spring from hibernation, their mating process begins. For them, well, they come together to mate and then they go to their separate ways. Then about 6 to 8 weeks after birth, the offspring leave their mothers. Really? just 6 weeks? Is it possible for the offspring to make it on ~~its~~ their own so ~~yeah~~ young? Well, that's not as if they aren’t ready for the real world, because they are. Remember, they mature quickly and weather's nice, also they live in an open fields ~~with~~ where there is lots of edible vegetation. So roughly 6 weeks after birth, eastern marmots are just ~~seldom~~ old enough to take their chances surviving in a temperate environment.

So how is this related to their behavior? OHH, I get it. Since the climate's not too bad, the eastern marmots don't have to rely on each other too much, and they really don't need to stay together as a family to survive either.

~~And in~~ any contrast, the Olympic marmots, what about them? Well, they lived together as a family, and take care of their young until they are at least ~~their~~ two years old. They are really friendly to each other and what I really like is that they even have greeting ceremonies. And there are not at all aggressive territorial like eastern marmots. So, social behaviors' so different from eastern marmots because the climate where they live? That seems so bizarre.

Well the Olympic marmots inhabit ~~middle~~ meadows high in the Olympic mountains where the weather conditions are much harsher, so there are lot more winte~~r~~d and snow. The growing season only lasts about 2-3 months. So in that much shorter period of time, all the Olympic marmots, male and female, eat, play, work and nurture the young together, because the climate is so harsh. Coop~~o~~eration increases the survival rate of the Olympic marmots. They keep their young at home until they're physically able to survive on their own. This could explain why the social behavior of the Olympic marmots is so unlike that of the eastern marmots.

umm, excuse me professor Thompson, I know your office hours are tomorrow, but I was wondering if you ha~~ve~~d a few minutes free now to discuss something.

Sure, John, what do you want to talk about?

Well, I have some quick questions about how to write up the research project I did this semester about climate variations.

Oh yes, you were looking at ~~the~~ variations in climate in the grand city area, right. How far along ~~did~~ have you gotten? 你做了多久了

I’ve got ~~up~~ all my data, so I'm starting to summarize it now, preparing ~~grasp~~ graphs and stuff. But I'm just looking at it and I'm afraid it's not enough. But I'm not sure what else to put in~~to~~ the

report.

I heard the same thing from every student, you know, you have to remember that now you are the expert on what you’ve done. So, think about what you need to include if you ~~gooduce~~ were going to explain your research project to someone with general~~ly words,~~ or causal ~~or~~ knowledge~~d~~ about the subject, like… like your parents. That's usually my ~~role of that~~ rule of thumb经验法则. would my parents understand this.

Okay, I get it.

I hope you can recog~~o~~nize by my ~~thing~~ saying that how much you do know about this subject.

Right, I understand. I was wondering if I should also include the notes from the research journal you suggested ~~that key~~ I keep.

yes ,definitely, you should do this to indicate what your evolution in thought was through time. So just set up, u know, what was the purpose of what we were doing to try to understand the climate variability at this area. What you did and what your approach was.

Okay, so for example, I study ~~medialogical~~ meteorological records, I looked at climate charts, I used different methods for analyzing the data like certain statistical test and I discussed the results. Is that what you mean?

yeah, that's right. You should include all of that. This statistical tests are especially important. And also be ~~shown~~ sure you include a good reference section where all your published or unpublished data came from. ~~Could~~ ‘cause you have a lot of unpublished climate data?

Emmm, something just came to my mind ~~waht else~~ and went out the other side.

That happens to me a lot. So I’ve come up with ~~the precant~~ a pretty good memory management tool. I carry a little pa~~t~~d with me all the time and j~~aw~~ot down questions or ideas ~~I did~~ that ~~but~~ I don't wanna forget. For example, I went to the doctor with my daughter and baby son last week. And ~~I~~ we knew we wouldn't remember everything what we want to ask the doctor, so, we actually made ~~up at least~~ a list of 5 things we wanted ~~to ask~~ answers to.

~~Nosepat~~ A notepad is a good idea, since I'm so busy now, at the end of the semester I'm getting pretty forgetful these days, Okay, I just remember what I was trying to say before.

Good, I was hoping you come up with it.

Yes, it ends up that I have data on more than just the immediate grand city areas. So I also include some regional data in the report. With everything else ~~would~~ it should be ~~the truly~~ a pretty good indicator of the climate in the part of the state.

Sounds good. I’d be happy to look over a draft ~~first~~ version before you hand the final copy if you wish.

Great, I’ll ~~a~~ plan to get you a draft of the paper by next Friday. Thanks very much. Well see ya

Many people consider John Waston to be the founder of Behaviorism, and like other behaviorists, he believe~~s~~d that psychologists should study only the behaviors ~~that~~ they can observe and measure. They are not interested in mental processes, while a person could describe his thoughts, no one else can see ~~your~~ or hear ~~behaviorism~~ them to ve~~a~~rify the accuracy of his report.

But one thing you can observe is muscular habits. What Waston did was to observe muscular habits, because he viewed them as a ~~manner of stationary~~ manifestation of thinking. ~~What~~ one kind of habit that ~~you~~ he studied are ~~lerigial~~ laryngeal habits. Waston thought L habits, u know, from ~~lenariks~~ larynx, in ~~an~~other words related to the voice box.

He thought those habits were an expression of thinking. He argued that for very young children thinking ~~nears~~ is really talking out loud to oneself. Because they talk out loud even if they are not trying to communicate with someone in particular. As the individual matures, that overt talking to oneself becomes covert talking to oneself. But thinking still shows up as a L habit.

One of ~~this~~ the bit of evidence that supports this is that when people are trying to solve a problem, they umm... typically have increased muscular activity ~~and~~ ~~thrilled~~ in the throat region. That is, if you put electrodes on the throat~~d~~ and measure muscle potential, muscle activity. You discover that when people are thinking like if they are diligently trying to solve a problem, that there is muscular activity in the ~~throld~~ throat region.

So Waston made the argument that problem solving or thinking can be defined as a set of behaviors as a set of responses. And in this case, the response you observe was the ~~throld~~ throat activity. ~~In that what calls it as L habits~~. That’s what he means when he calls it a L habits.

Now ~~here~~ as I am thinking about what i'm going to be ~~think~~ saying, my muscles in my throat are responding. So thinking can be measured as muscle activity. Now the ~~mode is here~~ motor theory....yes.

Pro.Blake, did he ~~had~~ happen to look~~ed~~ at people who sign? I mean deaf people.

He did indeed. And to jump ahead, what one ~~want~~ finds in ~~definite~~ deaf individuals ~~to~~ who use sign language when they are given a problems of ~~with~~ various kinds. They have muscular changes in their hands. When they are trying to solve a problem. Muscle changes in their hands, just like the muscular changes going on in the throat region for our speaking individuals. So for Waston, thinking is identical with the activity ~~in~~ of muscles.

A Related concept to thinking was ~~with~~ developed by WJ, it's called IMA. IMA is an activity that occurs without our ~~notice thinking~~ noticing it , without our being aware of it. ~~Now~~ I’ll give you a simple example, if you think of locations, there tends to be eye movement that occurs with your thinking about that location. In particular, from where we are sitting, image that you are asked to think of our university's library.

Well, if you close your eyes, and think of the library, and if you are sitting directly facing me. Then according to this notion, your eye balls will move slightly to the left, to your left. 'cause the library's in that general direction. J ~~another~~ and other said this is an idea leading to your motor action. And that's why it's called IMA. An~~d~~ idea leads to motor activity.

If you wish to impress your friends ~~in~~ and relatives, you can change the simple process into a magic trick. Ask people to do something, such as just ~~to~~ as I described, thinking of something on their left, and think of something on their right. You get them to think about two things on either side with their eyes closed. And you watch their eyes very carefully. And if you do that, you will discover that you can see rather clearly the eye movement that is you can see their movement of eyeballs.

Now then you say ummm...think of either one ~~out of~~ and I’ll tell which you are thinking of. OKay, well, ~~what's the next~~ Waston makes the assumption ~~is~~ that muscular activity is equivalent to thinking. But given everything we've been talking about here ~~I want~~ one has to ask: are there alternatives to this motor theory ~~in~~--- this claime~~d~~ that muscular activities are equivalent to thinking, is there anything else that ~~M~~ might account for this change in this muscular activity? ~~Another then~~ , other than saying that is ~~this~~ thinking, then the answer is clearly yes. Is ther anyway to answer the question definitely? Now i think the answer is no.