Okay. Well, thank you, very much. This is always a great deal of fun for me. In fact, I've talked before on Monastic archeology in the [inaudible] form on a different site and this is going to be mostly about, or I should say its emphasis is about recent excavations that I've carried out two summers ago I guess now. Now, I need to preface this a little bit. I felt prey today to something I think that it's easier and easier to fall prey to, which is I've become very dependent on technology. Witness our wonderful recording and everything else back here. And so I came to school with a wonderful sort of Power Point that had all kinds of subtle clues about what I was talking about and what you needed to know, and of course when I got here the file was corrupted in some fashion and who knows what happened. So anyway, I pulled together some images, some of them are very nice, and they mostly do everything I need to do. The thing is I'm going to have to rely a little bit more on my ability to paint pictures with words, which since I'm dependent on Power Point now days is more and more difficult for me, so there'll be some things you have to accept on descriptive terms rather than being able to actually see them and I apologize for that at the beginning and ask you to bear with me a little bit.
Now, when I started thinking about presenting my field work from a couple of summers ago, and actually it was about five years worth of field work, we are only finally getting to the point of excavating at all, test excavations after about five years of preliminary research. It began to be apparent to me that I needed to take a couple of steps back because how many people here are familiar with Monasticism in its general outline? Does the word Monastic even mean anything to some of you, right? And in thinking about this problem I realized that I needed to give a little bit of an introduction both culturally and temporally to this notion of Monastic archaeology as it's practiced in Europe, England, France and Germany primarily, although similar types of work is going on in Italy, Poland and some other types of places. And so as I began to think about this I realized that I'm going to talk a lot about Monastic institutions and a lot about basic Monastic planning before I get to look at any sort of trenches and soil and all these wonderful things, artifacts that we look at. And so when I do need to talk then about Monastic archaeology, I'm going to sort of use my title here, Monastic archaeology at the Cistercian Abbey of Ourscamp as a kind of outline, right, for the things I want to talk about in the kind of order I want to talk about them in. And here I show you a nice picture of what's left of part of the Abbey and I'll explain to you which part that is as we get closer. For now, it just makes it very kind of picturesque picture. The first part of this title then has to do with monasticism.
And monasticism has a kind of long history and long trajectory, and the reason why I think that it's important to talk about the institutions of monasticism and the physical architectural implications of that Monastic life here at the beginning is that for Monastic archaeologists these form a kind of grid with which we work, a conceptual grid as well as a physical grid that is somewhat different than the kinds of organizational structures that most of you are familiar with doing archaeology. And so here I’m going to try to give you in, you know, ten minutes the history of monasticism, which you can imagine is going to be rather superficial. So those of you who know somewhat more about it forgive the kind of lapses. But I showed you here are two people for the history of monasticism that one needs to think about. On the right is Saint Anthony, okay? And Anthony from the sort of third century A.D. Famous for going off into the desert, right? He's living at a time and a place when Christianity is becoming more and more main stream, right? It's becoming more and more part of every day life, it's becoming more and more part of elite life, and in fact, culminating in 330 when Constantine makes Christianity the official religion of the Roman empire. Now, as you can imagine, for early Christians for whom one of the primary points of the religion was the way in which it distinguished them from the society in which he lived, this sort of overall acceptance in the integration of Monasticism into the economic, political and social structures, caused him a certain amount of unease. And one result of this were people like Anthony who goes off into the desert, leaving society behind him entirely.
He says I've had enough of this economic business, I've had enough of the ties of society, in fact, I need to be thinking about the next life, right? Thinking about heaven, thinking about my salvation, and I can't do that when I'm surrounded by, you know food and pots and gold and silver and jewelry and people and all the distractions of political life and social life and so forth. So he goes to the desert and sits there by himself being what we call a hermit, eremitical tradition this is called, sitting there contemplating his salvation and contemplating his -- the next life. Now, this puts him in a position to be outside of the regular kind of world which most people live in which caused two different sorts of reactions. One, he attracted a bunch of followers. People came to him and said well, I want to be like you, so I'm going to sit here next to you on the dusty ground and wear tattered old clothes and eat the bare minimum of food and try to become this kind of non-societal other worldly figure that you are. And in fact, these numbers of followers that were attracted to him ranged up into the hundreds and hundreds of people going out into the middle of the Egyptian desert in order to practice this kind of life. The other reaction was by people who wanted to stay within society, particularly political leaders and economic leaders, they came to him for advice. As somebody who is standing outside of society, he was in a position, so we thought -- so they thought, to comment on problems and issues within society. He became a kind of mediator, he became a kind of person to give advice to rules about how to do any number of things from whether or not to fight wars, to how to institute financial policy, any number of things
Now, as you can imagine, St. Anthony started to be annoyed by this, right? All these people coming and knocking on his door, all these people setting up shop next door, his response was to move further and further into the desert. Now of course, the further he moved into the desert, the more his reputation as a holy man developed, and in fact the more followers he got and the more people chasing him around. It caused him no end of grief. So I'll show you this wonderful picture of him. See around this road, out of town, right? And it just lets us talk about an awful lot of things. He's sort of dressed here as an abbot, right? Because in the end he's a leader of -- he's a conceptual leader of what it means to lead a Monastic life, even though he himself said he didn't want to have anything to do with teaching people how to lead a Monastic life. But nevertheless, we dress him up as an abbot, an Eastern Orthodox Abbot in this case, and he's out there on the road leaving town, right? You can see he's leaving town into the desert with his halo, you can tell how saintly he is and it's gold colored, and in the background you see the town, the church, right there, which signifies, stands for the town itself, and in the background the ships coming from even further away. And you're meant to understand this sort of dry desiccated area as Egypt, right? The Mediterranean Ocean and then Italy and Greece and all these sort of green lush places where society is flourishing and where people are being happy but running into problems, and so they come ask poor Saint Anthony how to solve their problems, and you can see he has his back turned on all of this as he's trying to work his way out into the desert, one reaction to this issue of the incursion of the every day world onto spiritual life, right?
Another reaction, a subtly different one, is represented to us here by Saint Pachomius, who started another tradition -- Monastic tradition. His response was to say well, they're going to come, right, the followers are going to come, the political leaders are going to come, the kings and queens are going to come so the best thing to do is control it, so he sets up shop, right? He sets up a place, sets aside a place where they can live, where people, his -- he can live, his followers can live, he organizes their life, he gives them rules to live by, he organizes their architecture and their space so he can protect them to a certain degree from the outside world and to provide avenues for access to the outside world. And this we call synobitism [assumed spelling], which is a fancy way of saying Monastic in the general sense. That is to say getting together and living together as a communal group. Still outside the normal bonds of civilization because here you've given up your identity, you go into a monastery, you give up your name, right, you get a new name, you give up your family name, which is most of your identity at this period. You give up your money, you're meant to give everything you own you give to the monastery and they then use it to build more homes and to feed themselves and so forth, and you turn your back on property and everything else. So the idea is you no longer have an individual identity, but you have a communal identity, and one that sits outside of normal society. And so here you have an individual in eremitic tradition and a group tradition that develops.
And here you can see him sitting here looking at you face forward, he's got all of an Eastern Orthodox, Bishop actually although he never was a Bishop, I don't know why they dressed him up that way. Nevertheless, you can see he's got a jeweled cross, he's got sort of liturgical ornaments on him, and he's outside of town, right, in the hills above town, but here's town and here's, you know, angels giving him sort of the right to preach and to speak and sort of creating for him a kind of an authority, right. And so I give you these two people as a way of understanding the history and the traditions of Monastic life, because those are the two kind of origins.
As we move forward in time, you get -- here you go -- as we move forward in time things develop, and in particular out of the draconian tradition of a group of communal life. Monasteries then are these groups of people who get together turning their back on the world and they have several characteristics, including, as I said before, communal living, communal property, right, no individual owns property, and to be a Monastic the definition of being Monastic is living by a rule, that is to say, a written rule that sets out guidelines for all of your behavior. When I say behavior, all of your behavior, I mean all of it. And there's several rules, the most famous of which and the most enduring of which is Saint Benedict's rule, and aside from the fact that it's a very good rule, a very flexible rule, Charlemagne and about 800 said right, everyone's going to follow this rule, and so, at least in my empire and that sort of put it ahead of all the others because there are several Irish rules and several Spanish rules and some Eastern Orthodox rules. Nevertheless, you have this clear set of rules that tell you when you get up, it tells you what you eat and when, it tells you what you do with every hour of your day, when you pray, when you work, what order you go to dinner in, what you do while you're eating dinner, what the structure is, who your superiors are, everything. It really controls the entirety of your life. And so in this way you're segregating yourself from the rest of society.
And in order to illustrate the kind of importance of this idea for understanding the place of Monasticism in the world, or the lack of a place in some ways, the best illustration I can think of is a historian by the name of Peter Brown wrote a few years ago a piece about the place of holy man in late antiquity and this is a very good article, well, a fantastic article in fact, Peter Brown being one of the smartest people I think alive ever. Strange guy. I overheard him telling somebody and asked him, how are you? How are you doing today? And he says, oh, you know, I'm doing quite well, I've been in the third century and it's very nice there. [Laughter] He's a very soft spoken, very kind sort of a man, and very smart. And he took some ideas that were first developed by Arnold Van Gennep and then Victor Turner to do with liminality and to do with the role of basically people outside of the main structure of society in making that society function, right. And he developed them into this idea of this individual or groups of individuals, depending on who you're talking about, who had a real social role to play. The reason why people went to talk to the Saint Pachomius and why they went to talk to Saint Anthony is precisely their ability to stand outside of the world as we know it and comment on it and critique it and provide mediation and provide ways of talking about the world. And this tradition continues throughout the middle ages, and it gets more sophisticated.
So by the time period that I actually want to talk about, the time periods we're digging through in the sort of twelfth and thirteenth century, you have established a clear rule, everyone's using the Benedictine rule, this simple kind of structure, a kind of constitution of Monastic life. But within that, each monastery, each group of monasteries is different. That is to say they all follow the rule, but how do you interpret the rule and how do you deal with all the other things that the rule doesn't actually cover? And the answer of course is you write up a set of your own rules, which is called a customary, and so each order, we talk about different Monastic orders, they're a group of monasteries that all use the same customary. And this leads us to talking about Cistercians. And Cistercians are a order of reformed Monks who get together and leave Robert of Milan gets together at Milan actually, and he decides, you know what, life here isn't strict enough, we're not doing our job as these kind of holy men, these outsiders, let's move up the valley to a new place, start over again. And so he moves up the valley to the new place, still using the Benedictine rule, but in this case focusing on reinterpreting it, right, being more kind of literal in his interpretation of what that rule means, and this is a very popular thing to do. So just like Saint Anthony, this order grows exponentially, right, it starts off with maybe three, four houses in sort of 1050 and by 1130 there's probably 400 houses in [cough] Europe, and by the sort of thirteenth century there's another four or 500 on top of that. Talking about hundreds and hundreds of individuals and hundreds and hundreds of -- and hundreds of actual Monastic sites all over the place, right. David? You had a question? No.
Ah. The Cistercians start off in France. Milan is in central France, but very shortly it's an international order. So one of the first big international groups of people so they start off in France and within a generation there are houses in England, in Germany, in Spain, in Italy, eventually in the Holy Land, in the Eastern Mediterranean, and there are still Cistercian houses in fact because we have one right up the road here at Vina, you can go visit them if you want. They're a very nice group of people. They are, see, they are nice people, they're very nice up there. So there's Cistercians everywhere these days, even still, but they were absolutely ubiquitous in the middle ages. And so it's a very important kind of group of people. And here I show you Saint Bernard, a picture of Saint Bernard from the thirteenth century. And here you see him dressed up as a monk, right? Distinguishing himself in a variety of ways, including his haircut. You see the monks have these funny tonsures, right, and when you become a monk you got to have everyone know you're a monk, and one of the ways you do that is you shave off all the hair on the top of your head so you look funny and everyone can distinguish you fairly easily. In addition, you're wearing these habits, you see these kind of gowns that they're wearing. And this is more than just a dress, right, but it's also a legal status actually. Clothing is a legal status. When you put on the habit, that is a legal definition in the middle ages and you can't just stop. You can't just stop being a monk. Once you've made that decision then the monastery has control. They can drag you right back to the monastery. You've put on the habit, you can't put it off any longer, and so the way you look also reflects the life choices you've made and the way you fit into society and you no longer have options for doing other sorts of things.
And so here you have him all dressed up in a nice monkly outfits, and here you see Saint Bernard, bigger than everyone else, he’s a big larger than life figure. He was a counselor to kings, he was a promulgator of this particular institution. And here you have little Monks sitting at his feet learning from him, right, as he was dictating to them. It’s a very nice sort of a picture, but it also illustrates something else about the Cistercian order that makes it different from other orders, that is an important institutional change. Other Monastic orders, monasteries are more or less individual entities, right? They all follow the same rule, but each house had its own kind of set of guidelines within that rule, and it was a very kind of fragmented structure. The Cistercians did things differently. When they came to power, or when they started to develop, they had a very centralized control, that is to say, the abbot of Ceto, in the middle of France, had absolute control over everybody, and all the other monasteries sent representatives to Ceto every year to talk to them, to make decisions, to hand down decisions, and all the other hundreds of monasteries in the structure all had a direct relationship back to the original Cistercian house at Ceto, and in fact they thought of themselves as lineages, right, you see images of them all over the monasteries of little genealogical trees, right, when they trace their affiliation they call it, right back to this original house and they’re standing in the order depended on how they fit into that scheme, how long they’ve been Cistercians as opposed to anything else or as opposed to non-existent.
And interestingly enough, while we talk about affiliation, they always refer to themselves as daughter houses, and I'm not quite sure how that sorts itself out, but nevertheless, there's this kind of family tree thing going on and this structures not only sort of Monastic sort of institutions more generally, but it structures the way in which Monks think about themselves, and so therefore, structures the way in which they behave and the way they do things, and therefore provides a lot of the structure that we look for when we're talking about excavating what they did, right. And this is why I think it's important to understand, at least in the general sense, when I say Monastic what I mean by Monastic. Now, that's the institutional side of Monastic.
There's also a physical side to this kind of grid that we work with as Monastic archaeologist. I realize how weird we are when I started thinking about it. There's not very many people who do it and they all have sort of bizarre notions about what seems appropriate or not, but nevertheless. I show you here a kind of eighteenth century, well actually nineteenth century plan of Ourscamp, this Monastery I'm going to get to here at some point down the line, after it had been a factoring of some other things for a while, but it lets me illustrate what this point is, which is by the tenth century probably and certainly by the eleventh and twelfth century, a Monastic site was laid out in absolutely predictable ways, right. In the west anyway. This works out differently with Eastern Orthodox Monasticism, but effectively you have the same format with very minute internal variations that turn out to be very important, but it provides you a kind of physical grid. So you always have a church, right, usually the biggest building, although not always the biggest building. And either on the north or the south of it, churches always face in principle east and west, sometimes this varies depending on site location, but effectively, at least notionally east and west, laid out either to the north or the south is the Monks' living arrangement, right, around what is called the cloister, and that's this open kind of courtyard here in the middle with buildings on four sides, right. And then these buildings on this side, the east side, the side closest to the alter, the side closest to the most sacred parts of the site, are the dormitories and the chapter room where decisions are taken. You enter the whole site from this direction, right, and there's always a gate, a partition of some kind separating the Monastery from the outside world. There's this part of the church, which isn't used by the Monks at all, but rather by visitors. The east part of the church, which is where services are held and where the Monks do their work. Their work being praying and holding services and saying masses,
that's really what Monks do all day.
And now when I say all day, I mean all day. You get up at three and you run down the stairs and you say a mass and you get to have a little bit of a break before you got to run back down there before breakfast and do it again, then you get to have breakfast, that's kind of nice, and a little bit of a rest again, but then you've got to go there mid-morning, then you go there before lunch, then you go there after lunch, then you go there again at sun down, and then you go there again at night before you get a couple of hours of sleep before they wake you up at three o'clock in the morning to do it again. In between, you have time set aside for writing or working, and some way it used to be you'd work in the field and that becomes less and less the case. And you also have time set aside for other rituals. All of your life is ritualized. Going to the bathroom is ritualized. You do this in a group. You do it at set times. You do it in a set order. Going to dinner is ritualized, [laughter] you go in as a group, you eat as a group, and is there a good one? Actually it's hard to see on this plan. We don't know where their latrine is, but there are latrines in France, and in England as well, that are sort of 30 meters long, all right, and two stories high that hold 20 or 30 sort of stalls in these things, and literally they would line up together and go in and leave together. The idea was to set them up above far enough that they could get some distance between them and the sewer, which was an open sewer down below, right. That's a Monastic water system is a different kind of topic, and I could do that, that would be good fun maybe we should do that on some other time. Keep that one in mind. In any event, these things are always laid out the same so, you have your dormitory and your decision-making spaces, the second sort of most important space is here next to the choir of the church. On this side you have in Cistercian houses it's always this side, is the refectory where you eat together, which is a big building that looks similar to the church, and as I said, it's a highly ritualized
space.
And then on this side closest to the outside world you have all your sort of hospitality rooms. Here one of the things you do is provide hospitality to people, storage rooms, and visitors and so forth to the site. So what you find then is that not only is your life in terms of what you do with it from hour to hour heavily orchestrated, but so is the space in which you live heavily orchestrated. And this kind of courtyard provides a nice set of easy roots for these kind of processional ritual behaviors. It gives you access to every part of the site. And so when you go to a Monastic site in a general sense, you know where stuff is. You know where the big pieces of things to look for. In addition to the central spaces where the Monks actually live and work, there's some other things that are always there, including precinct walls around the outside, right. Monastic gardens in front and in back. The cemeteries are almost always in back. The infirmary, which is here, also tends to be in back, but they're not always. And then you always have a variety of other kinds of things, depends on what your Monastery does, but there'll be production of one kind or another, baking, brewing, any number of other sorts of things in what is this forecourt, this more kind of public space. Additionally, with all these people living together in one place, in Ourscamp at its height had 300 Monks, only Monks, and you have to figure at least that many what we call lay brothers, that is to say people who aren't Monks, but who do most of the manual labor, right. And in addition to that some unknown number of servants. So you're talking about a large number people living in a fairly confined space. And so one of the things of course you need a lot of is water and there's always sophisticated water management systems, including, in this case, diverting a tributary of the Waz River, which is over here, to run through the site in a specific way, so here it is sort of running around the outside, but they diverted a big channel of it right about actually right here,
but then runs through the site itself, and it flushes the toilets, it runs the kitchen, it does any number of other sorts of things, including run a nice fountain in the middle of the cloister where you did all kinds of rituals to do with water -- with washing and cleanliness. So there’s a whole bunch of behaviors and activities that you know from the outset to look for, and it’s the nuances of these that you’ll end up studying when you’re thinking about Monastic archaeology. Now, I’ll get to our site in particular because this is all about what I’m trying to explain why we’re approaching this particular site at Ourscamp as we are. You have these grids to work with. A conceptual grid and a physical grid, all right. And as it turns out, in order to get any further than just the basics, you've got to know what the whole of the specific physical grid is. You know sort of what the conceptual grid is depending on your monastery, and here the customary survives and the charter survives so we can study these things. A Monastic archeology project is always also a history project. It can't not be. There's no way in which you can understand the site without looking at documents. There are charters which are a compendia of basically legal agreements, donations, sales, these sorts of things that we'd like to be in order and they never are, right, they're in there -- by thematically they're in there by property, in the name of the property rather than for example, the date, which would be nice because not all of them are dated and so it doesn't work very well for you. There's the customary which also survives to the specific rules for this site, right, so what things are peculiar about behavior in this site we can get at. And also another important source of information is an obituary, that is to say a big long compendium of all the people that need to be remembered in prayers because they're in some way benefited the monastery, either through giving donations of one kind or another or giving political support or the Monks themselves are part of this obituary in the abbots
and so forth.
That too is in order of the festival dates, the day of the year, but it's always the same day of the year so everyone who's commemorated on October 12th, right, is listed under October 12th, not the year in which they died or gave money, right, so it becomes a kind of historical archaeology of its own trying to get at how to organize these things and anything that resembles a chronological fashion, they weren't concerned with chronology, they were after all concerned with the after life not with, you know our historical reconstructions. So there's that element to it. So it's always a historical project, but then also it's always an architectural project because as I said, without understanding the architectural history, that is to say the ways in which these living spaces that absolutely framed every aspect of their lives, changed over time, you can't then really understand the material you find, the different kinds of pottery and the Monastic life that you find. So in principle, our project is about studying Monastic life, but it has to start with studying Monastic architecture and Monastic history before we can even start addressing the less kind of well documented issues of life more generally, right, because it's fine for the customary to tell us that you're not supposed to wash your teeth with the towels, right, but of course, the customary is telling us that because they did wash their teeth with the towels and this a problem that comes up you'd be surprised how often it comes up. So we need to worry about other things like prescriptions about where to dump your trash for example, or where to get your water, prescriptions are always a problem so we look for things archaeologically, and of course a lot of daily activities are just sort of everyone knows you do it that way so they didn't bother to write it down, and these are other types of things we look for. So let me introduce you to the site a little bit.
We're in France, and particularly we're in northern France, the part of northern France we call the Waz, right, and so it's north of Paris, which actually not on this map since the Diocese of Noyon was an important central town, now it's a sort of more or less defunct market town, but the Bishop of Noyon was a very powerful sort of a person. And this Abbey of Ourscamp is also the largest and the most important Cistercian monastery in this region. Most the Cistercians started their life down here, more in central France, here's Ceto, right, and the first daughter houses were La Foerte [assumed spelling], for example, Clairvaux, shortly after Fontenay, and then things spread from there. So it's a little bit outside the main area of Cistercian birth at least, and it's the biggest kind of monastery in the northern -- this northern Waz sort of area, the river valley. And it's got incredibly generous support, both from the Bishop of Noyon, from the kings of France, from the local dukes, and everything else, so it's a very important place, that we know almost nothing about in the end physically because people just assumed they knew what they were looking at without really thinking about it.
So this is part of the ruins, right, we can see it's ruined, right. These people say, oh well, you know, it would be nice to know what this important place looked like, but you know, it's ruined so what are you going to do. What happened to it, any guesses what happened to it? Bombed. No. Good. It might have been. There's great pictures of places like [inaudible] Cathedral bombed into oblivion, right? It has certainly happened. For these monasteries though actually, they usually, particularly the Cistercian ones are out in the countryside, and they didn't tend to be the target of bombings, but rather in the French Revolution, 1791, the then Revolutionary government confiscated all of the church property, right, along with a bunch of other property, and particularly Monastic property that they sold to raise money to run the government, which was very nice, so they sold it to people, and what does it look like to you? It's a big pile of stone, right? It's a big pile of nice stone in fact, and so they [inaudible] it. They took it apart systematically to use it to build other things, and that's where most of the church went. Okay. These bits in the east they kind of left partly because these are the kind of ornate sort of less regular kind of bits, right, a little bit harder to take down structurally dismantling this is dangerous a little bit. The parts that were there before were a little more straightforward, these are to take down so they're usually the ones that go first. So the first part of the building got taken down in I was to say 1791.
Subsequently, it was converted for use as a factory, a metal factory, they're making all kinds of metal parts, everything from like carriage wheels to tools to pipes to just any number of things, and so here I show you the back side of the monastery. Back -- photos very early sort of around 1890, 1895 when you still have a lot of this metal sort of [inaudible]. And those of you who have dug anywhere start imaging what this has left behind in an archaeological record. The first few layers are quite unpleasant, right? They're really chockfull of rotting, rusting metals and problems and in fact, I brought -- I didn't, as I said, this was one of the problems I have, I just wanted to show you we did some resistivity, and some magnnotometry, and some ground penetrating radar, and as all you can imagine it just sort of looks like above, yeah, it doesn't help us at all. And we found that out when we excavated and this is what we were doing. Why didn't that stuff give us any results while we know there should have been results, and one answer was, as we found out, that there was a large sort of layer of decaying metal in there that caused us grief. I won't go into that because I don't have the nice pictures of the [inaudible] to show you, no less, it was a -- it was this factory for a long time, which actually preserved pretty well the parts of the site that had survived the demolition after the revolution because they didn't have any interest in the church and so forth, right, they were mostly using the other more functional buildings for this factor, and in fact the old dormitory, which you see here. And it's an enormous building, as you can see, what's left of it. Housing hundreds of people they turned into the main factory, they put in an elevator, they put in an elevator, they put in all kinds of machines and all kinds of nice stuff.
It's not there any more of course now it's just a shell of a building. And then a little later on it was in the beginning of the nineteenth century, actually this predates the factory phase of the site, they made it into a nice kind of mansion so they put this wonderful sort of eighteenth century facade on the front of it. This is the front entrance. And there's still Monks living there today. This is one of the fun parts of doing archaeology here, this side of the building is occupied, not by Cistercians any more, but by the Serveters of Jesus they call themselves, they're a relatively new order, a French order, whose main mission has to do with helping underprivileged youth and so forth. They're a nice bunch of guys, but they live there and so of course we excavate and do these other things on their terms and sort of talking about doing archaeology on a living Monastic site is a different kind of talk and maybe one I should do. It's a very interesting kind of process because it really changes the way you do things, and now we're getting on doing, because there's some great stories to go along with trying to negotiate this. One of the reasons it took us so long to start excavating here is we started off with negotiations. You go there and you say, hey, this is who I am, we're these professors from the United States, we really are interested in this building, in the architectural history of this building, and we'd like to do a little work here. Oh, okay, well, write a letter to the Father Superior and see what he has to say. So you write a letter, wait a few months for a reply because they've got other things on their mind other than entertaining American archeologists. They reply, they say come by, sure we'll let you look around. Come convince us that it's worth our while.
So we go to do that the next summer we can get over there and find out that in the meantime they had had elections and the Father Superior we were talking to is no longer the Father Superior, there's a new Father Superior that we have to talk to again, and it's just kind of a never ending process. And of course they say sure, you can do a little bit of work. You can do a little bit of this, that or the other, but we don't want you here too much because we don't want you to interrupt our very specific kind of a life and we've got other things to do. And so you know, you develop a kind of relationship and eventually they let us stay longer and longer until finally they say yes, you can dig big big holes in the middle of our yard, right, and eventually we're able to do that. So this big facade goes on and everybody says well, that's it. I mean, that part of the site we just don't know anything about any more. And I'll come back to that here in a second, but I wanted to give you a kind of tour.
So as you walk through the site, you enter the site then through this nice eighteenth century door with its sort of neoclassical pediments and its neoclassical sort of architectural columns here and plasters and you walk through the door and you can see the remains then of the east end of the church only, with this nice wonderful space in between and here you see this wonderful kind of picturesque ruin, you can imagine having your supper out there looking at it.
It's all very nicely planted. As you walk in one of the former Father Superior's of this Order decided to be very nice to reconstruct the volumes of the missing center or west part of this church we call the nave. It'd be very nice to reconstruct it so he planted all these nice cedar bushes, right, along where he imagined the piers, the main piers holding up that side of the building were. Well, it's not clear that that's where the piers were to begin with. And secondly, of course, if they are there they're not there any more because tree roots have an incredible appetite for limestone as it turns out. Limestone retains water, it has nutrients in them, and they'll sort of dig in there and turn them into dust in just no time at all. So we have that to sort of fight with often on Monastic sites because what's not there any more, or what one doesn't know is there below the surface, tends to be treated in ways unknowingly that destroy it for us archeologist to get at. So this is a different kind of a problem.
As you sort of follow through the site then, this is a little bit closer to this ruminant, this wonderful bit of church, and as it turns out this part in the back, I mean you can see by looking at it, right, that there's some differences. This part of the church here with its kind of big tall triple opening windows, the lynx's and the oculace at the top, and its sort of gothic linear decoration is something very different from this flat surface over here, right. And this flat surface over here. And it turns out that this part of the church, which we call the transept, is twelfth century, right, and this part, the choir as we call it, this radiating choir in the back is thirteenth century, right? And so we begin to wonder to ourselves, how does this transition work? Right. If you've got a twelfth century building, and we know the whole thing was there because we know they were worshiping there, and you want to knock down the most sacred part of it so you can put up a new sacred part, how does that happen? Right? How does it happen in terms of keeping up saying your masses and all the work that you actually are doing in the church, right? How does it happen pre-Monastic life? But also how does it happen structurally. I mean, think about it. This is large stone masonry that you're taking parts of it down, right, and putting up new parts. And so structurally, what do you got to do? I mean, you've got to dig a big hole to look for foundations, to make sure that thrusts and things are countered so that your walls don't fall over on you as you're working through this thing so it raises a lot of very interesting, both architectural and archeological problems in trying to understand it.
Now I want to continue our tour a little bit because it's just nice to look at, right. So these numbers then are these ribbed vaults between these were at one time, what we call webbing, right, so it made a nice enclosed sort of space. The ribs as we call them, are sort of linear members that stay there because they're nice and stable, and it suggests one of the answers to how we go about dealing with change over time in a Monastic site such as this made out of stone masonry because vaults are very stable, it's a very stable form of building. And when you start trying to understand the structural behavior of these vaults, it becomes very complex. So you no longer have the kind of horizontal stratigraphy [assumed spelling] that we're used to digging in the ground, but rather you have a type of vertical stratigraphically in which the oldest thing doesn't necessarily have to be on top. The oldest thing can be in the middle because you can knock out one wall as long as it's got a vault, put a new window in there, or put a new door in there, or put a new set of masonry in there. Right? And so it complicates this problem of trying to sort out this horizontal stratigraphy [assumed spelling], and it's one of the things we spent a lot of time worrying about at this site, a lot of drawing, a lot of looking, a lot of measuring to try to figure out what the phases of construction were and how they fit together stratographically in almost four dimensions, right, because as it turns out stone masonry behaves structurally more like a liquid than a solid, it bends, it deforms, it does all these strange things that are not explicable in any kind of intuitive sense until you start looking at it in detail.
And here I just show you from the back side then so you can see a little bit of what's left. This is the choir then that we just saw from the other side, this is its foundation [inaudible] peeking up above the ground, and these set of chapels that run around the back side of the building. And then over here, what remains of the dormitory, a large dormitory block that ran some 120 yards further down this way. The overall dimensions of this building were something in the neighborhood of 150 meters long and something like 40 meters wide. It was a truly enormous kind of a building, of which not a lot survives.
But one of the interesting things when we were here looking at this site five or six years ago, on our way back out, right, now we’re going back out the door we came in, we’re on the west side again of the choir, and we started looking at this and realized, and in fact, this building in the west is not an eighteenth century building, but rather it's simply an eighteenth century facade on top of the original twelfth century western facade block. And so what I had great pictures to show you is by way of illustrating vertical and horizontal -- how do I say? Buildings, archaeology, was the process we went through because based on the remains, after we started crawling up in here, we could reconstruct in its entirety all of the missing parts of the church, right, based on measurements and based on a variety of things because we made plans, we made sections, we made measured drawings of the whole section and elevation of this church, and inside the eighteenth century facade there's all old capitals, there's all the old decoration, the whole thing was hidden in there, and it allowed us to reconstruct graphically one of the most important sites -- churches in the history of gothic architecture in any event, which had before that point been completely unknown. And so I apologize for not being able to show you those nice plans and so forth, but they didn't come with me today. I don't know where they went, maybe right in here somewhere. So based on those plans we were able to reconstruct the missing parts of the church with a great deal of certainty, a great deal of accuracy, and it raised all kinds of questions about how they made the transition from that early twelfth century part of the church to the thirteenth century part of the church, which as I said, are these parts back here, right,
and this is just to show you where we put a couple of our trenches when we started looking at this because what we didn't know is what the twelfth century church looked like on its east end. What kind of an east end did it have? What shape was it? How big was it? What does that let us know about what it's relationships are to other churches, and what does that tell us about the particular kinds of structural problems they encountered as they were attempting to reconstruct it, so we put it in this first stage then, we spent two or three or four years measuring and plotting, trying to get everything together, all the historical documents together, and all the physical remains above ground analyzed before we ever were able to put in our first little test trenches, and these are finally where we get to. There's one other thing I want to talk briefly about because here I show you the east end and the west end I told you we reconstructed, but in between there was nothing, and nobody surprisingly had gone out there with a phodilite and actually measured the whole site and meshed it all together. As it turns out, as we began doing the research, we put together a kind of genealogy of the plan for the site, and what happened was a scholar, a French scholar named Lafred Potalise back in 1903 sort of published two different plans, one to the west end, and one to the east end, right, in the same book he put them both in there. And then subsequently what people did was say well, here is his plan for the east, here's his plan for the west, I'll just stick them together more or less, right, I know they must be about this far apart, and people had some problems because what they couldn't figure out when they did this is these walls, and this again is a image I can't show you because it didn't come with me, the walls which came along here, the reconstructed walls, never line up. They cause any number of problems. They actually are all inside of where these piers would seem to need to be.
So the walls as you reconstruct it all sort of come like this, the piers come like this, and this outside wall comes in. And they couldn't figure out how to deal with this so they did all kinds of strange things, they stapled them together, they squished one part of it in for no reason at all, right, they messed up their measured drawing, when they spread up another piece out causes no end of grief, what turns out to be the case is what's represented here on the plan that we surveyed, which is that in fact these central piers belong to the older part of the church though they're redecorated in the thirteenth century, and they are in fact closer together, in that in fact the church, this radiating choir just doesn't come around here in a nice neat semicircle, but these walls actually display outwards and it's actually very striking when you look at it from below, again, a picture I can't show you, but these things display outwards in this sort of strange fashion. But that helps you then start reconstructing the ways in which this thing goes together.
So I show you then briefly some of the excavations we did, I showed you the trench in trying to figure out what the foundations actually looked like. And this is the kind of thing we're worrying about here is the picture or drawing, here's the actual foundations itself, and it's these foundation trenches, this is the gothic foundation, the thirteenth century foundation, and these are the trenches dug belaying that foundation. In this relationship between these foundation trenches, which get to be as narrow as sort of two centimeters, where we end up finding all of our information, our chronological information about understanding the rest of the site. This all over here is sandy fill from somewhere off of site, probably down by the river, it's got a lot of Gallo Roman pottery in it and that's all well and good. And in these upper layers we found some fifth century pottery, which is very nice, it's fifth and sixth century pottery because historically traditionally this is supposed to be a place where another saint, Saint Elwha, came and spent a bunch of his time but there's no actual evidence of occupation that early and he was a sixth century saint, very important, it's actually where the name of the place comes from. There was a bear roaming around causing trouble in this area and Saint Elwha went and chastised it and after he chastised it the bear followed him around like a tame dog for the rest of the day so, it was comped as field of the bears and that's where the story comes from, but there'd never been any evidence, other than legend of there being occupation in this part of the site. Now, we haven't found actual fifth, sixth century occupations, nor have we found Gallo Roman occupations themselves, we do have in the fields the pottery we know to at least look for them, which is nice.
And then it worked out well for us too. The pottery inside of this foundation site is all good sort of early twelfth century pottery, which means that we're not looking at something, you know wildly wrong in terms of our dating and so forth. It helps us get a notion that there is stratigraphy here because the reason nobody had excavated here before is you saw the picture of the machine ship and everything else, the assumption was that there's nothing to excavate there, all right, it's a mess. It's been a mess forever. And so part of our initial point, of course, was to go see if there was anything left, and as it turns out for us there is, which is nice. In the summer we're going to go back and do a little more work at the end of which we hope to be able to have enough done to apply for some larger grants so that we can have a big field trip full of students. The idea is to be able to have a larger team full of students is the ideal.
So here I just show you a little broader picture, here's this wonderful gothic foundation, this big Goth foundation raft in fact, it's a truly enormous sort of a thing in our sort of three meter trench down below you wouldn't be surprised to find out that of course our remote sensing picked up this nice pipe. We knew right where that was, this lead pipe, but that didn't do us as much good as one might have hoped.
Some other things that we found that have let us begin to understand some of the phases and some of the change that take place on the site over time, these are almost impossible to see, and even when we're there they're impossible to see, but what you're looking at here, and what you see drawn here are tile impressions. That is to say, the flooring, the actual circulation level still exists so the remnants of it still exist. The mortar in which these tiles were laid in have left small little ridges and small little patterns on what is here at this stage, not filled but rather the foundation, the limestone foundation. And here I show you various sorts of tiles. Here's some nice marble and slate tile programs they had. Here's some larger seventeenth century hexagonal tiles. These are all lovely kind of medieval twelfth, thirteenth century glazed tiles. And then some slate paving stones as well and these all have different modules, they have different sizes, it's a bit like looking at pipe stems, you can be pretty clear about certain kinds of dates based on the shape and the dimensions, the modules of these tiles. So as we find tile impressions, it allows us to reconstruct, read flooring schemes and so forth. Motor types were another great thing that we get to use, which a lot of people don't.
So you can see this little sort of reddish thing here, and here, this is actually a tile impression, this is a rose mortar, a mortar that has ground up brick in it, which for France means that it has to post date to seventeenth century. It was a Roman way of making mortar, so it's hydraulic mortar to withstand wet sites, which this is a very wet site, but we seem to have forgotten how to do it in France after about 400 A.D. and don't seem to figure it out again until people start going back to Italy during the Renaissance, so this lets us start dating certain types of repairs and so forth on site. Okay. We're out of time, aren't we?
Good, well and then roof tiles. Well, let's just stop then. And here's just roof tiles just so you can see. So here's some nice tegular roof tiles, Roman style roof tiles that function one way, medieval roof tiles with holes in them function another, and some slate and other types of roof tiles, which lets you reconstruct roofing schemes, because when you change roofing tile types, you also have to reconstruct, or change the structure of the roof itself and it lets us do a lot of stuff.
Anyway, there's a lot of other things we do -- I thought I had a picture of it, I don't. So thank you.