

Juergen Stein, Barry Stanner and historic ORTEC Building 1 (As published in *The Oak Ridger's Historically Speaking* column on January 2, 2012)

On Wednesday, 12/14/11, I was privileged to have Barry Stanner give me a tour of the historic ORTEC Building 1, located at 100 Midland Road, fronting on South Illinois Avenue and directly south of the Y-12 Federal Credit Union building. It is now the local Oak Ridge office of *FLIR (Forward Looking InfraRed)* and owned by Juergen Stein.

I came to this opportunity because of Hal Schmitt. Hal had connected Barry and me because of Barry's response to seeing Hal's *Early History of Oak Ridge Technical Enterprises Corporation (ORTEC)* being published in *The Oak Ridger*.

That seven part *Historically Speaking* series of articles has generated a tremendous amount of positive feedback and has further convinced me that we are NOT doing a very good job of capturing the recent history of Oak Ridge. I am growing more and more concerned that huge amounts of information about historically significant events, technological achievements and scientific discoveries are being missed by our local media and history capture methods (or the lack of them).

Take for example the Manhattan Project. General Groves knew that what he was being asked to do had the potential for tremendous historical significance. He hired photographers (Ed Westcott at Oak Ridge, without whose excellent photographs we would be at a loss to explain that history) and he commissioned written documentation of the details of what was being done as it was happening.

Published works were ready soon after the war ended, the first of which was *Atomic Energy for military purposes*, by Henry D. Smyth, first published on August 12, 1945. Japan did not surrender until August 14, 1945!

As I have attempted to capture the ensuing history of Oak Ridge post World War II, I have found a dearth of information for things that happened here after 1946. Almost immediately after the Manhattan Project and control of atomic energy was passed to the Atomic Energy Commission, the task of tracking history becomes daunting, to say the least. Frustratingly difficult may be a better term.

As we prepare for the upcoming potential Manhattan Project National Historical Park, Oak Ridge finds itself in competition with our sister cities of Los Alamos, NM, and Hanford, WA. Being able to promote our history well will be a part of that whole situation. The National Park Service is being challenged to become more educational. That means telling the historical stories of our nation's primary events and places.

Already we are seeing both Los Alamos and Hanford taking strides while we may be languishing behind. The "B" Reactor at Hanford is a giant step for them. The Los Alamos County Historical Museum, Bathtub Row featuring Robert Oppenheimer's home and Fuller Lodge and the huge impact of the Los Alamos National Laboratory and its gem of a museum, the Bradbury Museum, make for some very tough competition.

The American Museum of Science and Energy is one of Oak Ridge's most well known features, as is the Children's Museum of Oak Ridge. We have historic Jackson Square, the Guest House (sad state of affairs that one!), Chapel on the Hill, Oak Ridge National Laboratory, East Tennessee Technology Park and Y-12 National Security Complex.

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Now, how do we compare with heritage tourism potential? Only the first two really contribute. For various reasons, the others are not helpful right now. This is something we all need to work to remedy.

Now for the history of ORTEC Building 1 and how it came to be preserved as it is. It took the vision of a person from Germany to understand and appreciate the significance of this structure. It was sitting idle and did not have a good path to preservation when purchased in 2002 by Juergen Stein. No one in Oak Ridge recognized the significance of it, but Juergen did!

It all started for Juergen when he desired to work with Oak Ridge, known to him in Germany as THE place for technological advancement in multi-channel analyzers. This was 1985 and he was having difficulties with his company, Target Systems Electronic, GmbH, in Solingen, Germany. He needed to expand his market.

Juergen knew Ed Fairstein, the founder of Tennelec, one of the most highly regarded producers of nuclear instruments, as stated by Louis Costrell of the National Institute of Standards, at the time of Ed's death in 2005. This connection led him to ORTEC where he "tried to sell" them regarding his work in Germany. He was attempting to break into the United States market.

He said, "It did not go well" and that evening while sitting dejected in his room at the Oak Ridge Garden Plaza Hotel he stated emphatically (to himself) "I will come back!" And that is just what he did.

Over the next several years, Juergen, watched as ORTEC continued to do well, expanded and continued to grow the business. He also watched Tennelec grow and expand. He constantly thought of Oak Ridge and all the amazing discoveries in nuclear instrumentation and radiation detection that were being invented, modified and marketed here.

He likely knew more about what was happening historically in Oak Ridge than we did ourselves. Sad to say, often people outside Oak Ridge appreciate what we too often just take for granted.

Meeting Juergen and hearing him talk about the passion he held for Oak Ridge and the historic discoveries in his chosen field is one thing that has helped convince me that we are missing a lot of our history. He knows it! Why don't we?

He watched with patience as things changed over the years. He was successful in his business and his career flourished, but he longed for a presence in Oak Ridge...where, to him, it all began with Ed Fairstein and Hal Schmitt and others like them who started companies as spin offs from the Oak Ridge National Laboratory. Maybe we need to create a master list of all the technical spin off industries that have started in Oak Ridge? It is our heritage and we should take pride in it.

As things progressed, historic ORTEC Building 1 was no longer being used for ORTEC operations and by the time Juergen noticed it the building had been sitting vacant for two to three years. So, in December, 2002, he purchased the building, mostly because he felt it needed to be preserved for history.

His appreciation for the significance of this structure saved it from some more inglorious fate. Again, his outside perspective was a key factor. Oak Ridge residents did not notice history was in danger of being lost. Juergen did.

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Juergen spoke very highly of Linda Brown who managed the renovation to the ORTEC Building 1. She was careful to keep the historic features of the structure while removing interior partition walls, adding over 30 windows and changing the dark laboratories to open interior space with windows for EVERY office.

This is something that Juergen is emphatic about...offices MUST have windows. He was also especially pleased that Linda managed to use 90% local workers for all the construction activities. He was already thinking "Oak Ridge first." Remember, he is from Germany, yet he is loyal to Oak Ridge!

Barry Stanner left ORTEC to join with Juergen to form the company, Target Instruments, Inc., in January 2003. They brought seven research and development engineers from Germany to help get the new venture going. Three of those seven are still in Tennessee! Two of the three in Oak Ridge! This just goes to show that once someone lives in East Tennessee through our beautiful changing seasons, they tend to stay.

Over the years, the company that started as Target Instruments, Inc., has continued to thrive. Ownership changed to ICX Radiation and, in October, 2010, FLIR purchased all of ICX. During this transition over the past 20 plus years, the instruments made famous world over, have continued to be reduced in size, become more and more inclusive of new features, and all the while maintaining their renowned high technical standards.

With 10,500 square feet of research and development, sales, finance, service and customer support located in historic ORTEC Building 1 and an annex building, Juergen's dream of coming back to Oak Ridge has been realized, in full measure. He spends about half of his time in Germany and the other half here in Oak Ridge. He owns homes in both locations.

Juergen is proud of the historic discoveries that were made in ORTEC Building 1. The technology invented there by ORTEC has continued to influence others to develop advanced instrumentation. The nuclear instruments, radiation detectors and other specialized devices springing from that early pioneering company are in use throughout the world. He emphasizes that it all began here in Oak Ridge and he is now, proudly, a part of that tradition.

Homeland Security is a source of much interest right now with the emphasis on radiation instruments to detect any potential movement of nuclear materials by terrorists. The day I was there, Juergen was meeting with a group who were looking at security related uses of their small handheld instruments.

As a visitor just happening to meet the group in a hallway, I quickly observed things were going well. It was obvious that relationships were being developed even at this early stage. It was just in the atmosphere that Juergen created in his interaction with the prospective customers.

The night after I toured the facility, one of their instruments was featured on national television in a fictional series – Crime Scene Investigation (CSI), but I could readily recognize the instrument. Amazing as it seems, the fictional application was mild compared to the actual capabilities of the instruments. Some can detect radiation up to 3,000 feet away!

The instruments are growing smaller and integrated with spectrometers. The ever-shrinking multi-channel analyzers, still the heart of the systems, are crowded with other complimentary features. Barry

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and Juergen are proud to note that they have been first to market with many advances in technology and provide excellent customer service. The future looks bright for this technology and for their company.

When taking some photos inside Juergen's office, he quietly told me, "Ray, it was very important to me personally to own this historic building." We need more of that kind of dedication to preserving our city's historic structures. Juergen saw the value of history and did something about it.



Barry Stanner and Juergen Stein in Barry's office

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Juergen with a favorite image in his office, Edward Teller's signature on the commemorative stamp at the 100th anniversary of the Academy of Sciences in 1963



The identiFINDER, one of their top selling instruments and the one featured on a recent Crime Scene Investigation (CSI) television program