WAKE UP in the highest tower of Schloß Romrod, a 16th-century castle tucked away in a lush valley in central Germany, where my surroundings are fit for a modern princess. While the building's skeleton is more than 400 years old, my suite is equipped with a TV, kitchenette, and pulsating shower, and the sitting area adjacent to the bedroom is furnished with a black leather couch and jewel-colored pillows. A bottle of champagne chills in a bucket of ice on an end table. Although real royalty once slept in this very room, the five-star accommodations hide the humble beginnings of this *schloß*, or castle.

I peer through one of the warped-glass windowpanes into the roughly circular interior courtyard. The only way into the castle is through a single stone archway that frames a pair of 12-foot wooden doors decorated with bands of metal hardware forming diamonds and thick crosses. The building's refinished sand-colored walls are speckled with dark stones, and the entire structure is topped with a fanciful gray roof festooned with red-trimmed windows.

It looks more like a Disney creation than a fortress that once held attacking enemies at bay. But excavations in the courtyard revealed that for nearly 400 years, the castle looked nothing like the one that stands today. And discoveries have shown that the first "knights" of Romrod were rustic farmers who lived in modest wooden houses—a far cry from the fairy-tale heroes who slay dragons and dazzle fair maidens with shining armor.

Germany in the middle ages experienced a succession of dynasties. When the House of Hohenstaufen fell in the mid-13th century, a period of political turmoil and disorder ensued. In the following centuries, great noble families such as the Habsburgs and the Luxembourgs came to power. The country functioned under the feudal system with a well-established hierarchy of kings, princes, dukes, and knights who were frequently called upon to fight in small battles on behalf of feuding noblemen. Knights were also instrumental in protecting merchants from bandits along trade routes, as the earliest defenders of Romrod were sworn to do.

The Starter Castle

From wood, to stone, to five stars the surprising tale of a German fortress

by Eti Bonn-Muller

The archaeological tale at this site began in 1996, when the Deutsche Stiftung Denkmalschutz (the German Foundation for Monument Protection), a nonprofit group that raises money to protect historical structures in Germany, purchased Schloß Romrod. The foundation wanted to fix up the castle, which had been neglected for decades, and establish an academy there where craftsmen could learn traditional building techniques and owners of other historic buildings could attend seminars on how to care for their properties. It also decided to transform a section of the building into an upscale hotel. And although the foundation planned to do limited archaeological work in the courtyard, it never could have anticipated the project would result in the first complete excavation of a wooden castle in Europe.

RENOVATION WORK STARTED later that year under the watchful eye of Jochen Weppler, a construction manager with a cherubic face and an easy smile. Early on he befriended Waltraud Friedrich, the archaeologist whose private firm was contracted to do the excavations. The sophisticated blonde had put her career on hold for 20 years to raise a family,



Excavations in the courtyard at Schloß Romrod, a 16th-century castle in central Germany, revealed the foundations of two earlier fortifications: one made of stone and one of wood.



but returned to medieval studies in the early 1990s. I meet the two across the street from the castle in a museum that opened last fall to house finds from the site.

When Weppler's team began digging a trench in the courtyard to install a modern plumbing system, one of his workers uncovered an old stone terrace. Friedrich surveyed the find and decided to have her team continue digging in the area. Several feet away, in the middle of the courtyard, they uncovered the foundation of a circular stone structure that turned out to be a late-12th-century watchtower. Friedrich was elated. Scholars knew that an earlier castle had preceded the 16th-century structure, but they didn't know anything about it. "Then we started finding so many old ceramics it was clear there *couldn't* be only one tower to find. There *had*

to be something more," says Friedrich. At one point, the team excavated a concentration of potsherds that amounted to 70 cubic feet. "We made 230 boxes of them. It was horrible!" she says, rolling her eyes. She grins and sits up a little straighter. "I immediately understood that this was an enormous project, and that as an archaeologist, one gets this chance once in a lifetime," she says, "if one gets the chance."

In Germany, archaeological work on such monuments privately owned castles that are still "usable" and not in complete ruins—can be pricey, so excavations are rarely done. Most people struggle just to keep up with the cost of maintaining their properties, which is why many castles have recently been converted into hotels. "The normal castle owner would have said, 'Okay, I'll do what [archaeological work] is



definitely needed and everything else should be paid for by the government—or it will stay in the ground," says Karl-Eberhard Feußner, managing director of the foundation's academy. He is quick to point out the government is not overly eager to spend money for this kind of work either. So it was not easy for Friedrich to convince the organization's administration that the dig was worth pursuing.

On what was supposed to be the last day of test excavations, a tiny, 12th-century chess piece about the size of a thimble—a bishop carved from animal bone—emerged from the dark soil. Chess was imported to Germany from India and Persia, and only well-educated people played it during medieval times. "The average knight could maybe gamble or play checkers," says Feußner, "but definitely not chess," which was reserved for nobles (knights were fairly low on the feudal totem pole). So whereas researchers expected to unearth ceramics, horse trappings, and perhaps some weapons, they were amazed to find a chess piece. With its discovery, the foundation was curious to learn more." It was actually the reason for the whole excavation," Feußner admits, a project that led to some of the most extensive archaeological research ever conducted at a castle in Germany and wound up costing about \$1.2 million.

Between July 1998 and May 2001, without interruption, the excavations took over the entire courtyard, forcing the architects to build wooden walkways over the trenches and devise a pulley system so construction workers could bring supplies in from outside.

> This wooden house foundation dates to 1185. It is the region of Hessen's earliest documented schwellenbau, a type of construction in which a base of four horizontal beams, or "schwellen," supported vertical squared posts.

The discovery of the foundation of a late-12th-century circular watchtower proved that an earlier castle existed at Romrod. Even deeper lay the waterlogged remains of four wooden structures. The castle's 800-year architectural history can be seen in the three building phases illustrated in the site plan.

 12th-century "wooden castle"

 13th-century stone fortification

 16th-century hunting lodge

HE SITE'S MOST INTRIGUING finds are made of wood and leather, materials that normally disintegrate in the soil, but here are preserved because they lay in groundwater for 800 years. Romrod is a *talburg*, a castle set in a valley, as opposed to a *böhenburg*, which sits on a hill. "It's a misconception we have that castles were mostly built on hills," says Feußner. "Many were constructed near rivers so people could access water. Castles were not usually taken by quick attack, but by a long siege," he explains, "and you die much faster of thirst than of hunger."

Water was also needed to fill moats around valley castles, some of which even had two moats for extra protection. Romrod was in a fortunate position: not only did it have plenty of natural groundwater for drinking and cooking, but it also had two small streams nearby that were channeled to fill the moats. Using the groundwater for drinking prevented the water supply from being poisoned by enemies dropping animal carcasses into the surrounding moat, a common practice in medieval warfare. But the abundance of water had a downside. "I think the biggest problem the builders of Romrod faced was that the ground was always wet," says Friedrich, whose team found layer upon layer of interwoven branches and straw, packed tightly with fragments of





ceramics, stones, and even animal bones used to build up the courtyard floor to keep it dry.

The soggy conditions also forced the archaeologists to spend three long years excavating at times in pits with water up to their knees and use sprinkling hoses to keep newly

unearthed finds wet. "My boys," gushes Friedrich in her thick Hessian accent, blowing a kiss into the air, "worked tirelessly!"

Among the first wooden finds to emerge from the waterlogged pits were two 12th-century drains that the builders of the castle used to dry out the area, just long enough for them The rare discovery of a late-12thcentury chess piece (a bishop) was the impetus for the \$1.2 million excavations.



to construct dwellings. Then they established small farms in the countryside. Friedrich also found evidence that the inhabitants erected a modest wooden fence to enclose their settlement. The greatest surprise of all came next: the entire foundations, including floorboards, of four late-12th-century wooden buildings. "It's very, very rare to find such a lot of wooden houses," she says. These houses made up a "wooden castle," the earliest construction phase at Romrod. Although the wooden structures were later replaced by impressive stone fortifications, these simple buildings have caused the greatest stir. "It's the largest wooden castle so clearly docu-

mented," says Friedrich.

The foundation of one of the houses has particularly interested scholars because it features four horizontal wood beams (called *schwellen*) that supported vertical squared posts. This type of construction was called *schwellenbau* and led to the development of *fachwerkbau*, or traditional timber-frame construction.



The builders of Romrod used layers of interwoven branches to keep the courtyard floor dry. The delicate finds were preserved because of the site's high groundwater level.

The use of schwellen was a key innovation because the beams stabilized a structure's foundation, allowing builders to add more weight to it. In later centuries, houses could be built higher, with new schwellen for each additional floor. The fachwerk style, which was perfected between 1350 and 1370, is well known from illustrations in German fairy tales such as *Hansel and Gretel*: from the outside, the wooden beams are visible between the *fach*, or stucco, which looks like icing on a gingerbread house.

Weppler was on site the day that Friedrich got the dendrochronological (tree-ring) dates back from the schwellen. "When I found out that the house dated to the 12th century, I thought, *it can't be*!" he says. "In all of our history books, the schwellenbau did not exist at that time." Before Romrod, scholars believed schwellen were first introduced in this region in the late 13th century, but Romrod proves that they were already in use by 1185. "They're a huge leap in the engineering of fachwerkbau," says Herbod Gans, lead architect for the Romrod renovation project, "and it's extremely

interesting to see them in use at such an early date."

Together, the wooden buildings tell us much about Schloß Romrod's earliest construction phase, which must have looked something like a small logcabin settlement surrounded by a moat and wall. "They're really causing a sensation in the study of castles," says Friedrich. She has concluded that one structure was a kitchen and another was a stable, where horses were kept on the first floor while people

The late-12th-century schwellenbau at Romrod may have looked like the rendering below. A house built in 1628 in nearby Alsfeld, below left, shows the more familiar fachwerkbau style that developed from the schwellenbau. This building today houses the region's Fairy-Tale Museum.

SCHWELLE

slept on the floor above to stay warm as heat rose from the animals. The other two houses, including the schwellenbau, were strictly residential, she believes, based on finds such as sewing needles, hair pins, and glass pearls, as well as a child's leather boot and a handful of marbles. "It's funny," says Friedrich, "fairy tales tell that such a castle had hundreds of people. But the family of a knight—with two, three, maybe four children—and perhaps two or three men and women for the household...I don't think there were more than 15 people living here."

The courtyard's central stone watchtower was built in the 1190s so the knights could protect merchants when robbers attacked. The

team excavated enough of the stone foundations to give Friedrich a clear picture of how the castle looked during subsequent centuries: a central tower with other structures, including living quarters, horse stables, and a square tower (where the hotel suites are today), encircling it. "At Romrod, we have the complete history—from the original castle up to today," she says, "I can read it like a book."

HEN DELICATE WOODEN ARTIFACTS are taken out of the ground, they must be treated with Polyethylene glycol, or PEG, a waxlike substance that seeps into, hardens, and preserves porous material. The PEG also makes the finds substantially heavier. Friedrich walks me to a gallery in the museum across the street from the castle, where discoveries from the site are displayed. She points out each square hole that once held a post in the

Below left, this drawing illustrates how the wooden castle at Romrod may have looked in 1193, with the central stone tower and fortification wall already under construction. By 1260, the stone castle, right, had completely replaced the wooden one.

A late-12th-century child's leather boot was found wedged between two floorboards in the schwellenbau.

schwellenbau remains, which dangle from thick steel cables attached to the museum's ceiling. Saturated with PEG, the wooden house foundation now weighs almost five tons.

Friedrich proudly guides me from object to object. Almost seven years after excavations ended, she remembers the exact spot where each artifact was unearthed.

She leads me to a shield she reconstructed from a handful of thin decorative copper strips her workers found clumped together. She has carefully arranged the pieces in the pattern of a typical 12th-century motif she likens to that of a stainedglass window. "I think no museum in the country has such a shield," Friedrich says confidently. "We have extraordinary things here because I can say they come out of this layer, this time...I think this is the earliest excavated [medieval] shield in Germany."

The artifacts have added much to what was already known from written sources that mention the castle. From the late 12th through the 14th century, the landgraves, or regional noblemen, stationed knights at Romrod to protect a portion of the Kurze Hessen, a bustling road network that merchants traversed between Frankfurt and Leipzig. (The first family who lived there took the name of the castle. "Romrod" comes from the German verb *roden*, which means "to clear," an allusion to when the forests were originally cut down so the area could be settled.) The early knights were also given the right to collect tolls from those who used the road, which is how many became wealthy. Friedrich's team discovered the tips of spears and crossbows, as well as links from chain armor. But finds including stirrups and a brush





Archaeologist Waltraud Friedrich stands in front of the five-ton schwellenbau display, which features the reconstruction of a wooden fence made of intertwined branches that may have enclosed a front porch. Her team found a late-12th-century bronze amulet, right, that was probably obtained by a pilgrim to Santiago de Compostela in northwestern Spain.

for grooming animals show that such castles also served as medieval pit stops, where passersby could refresh their horses.

Merchants who traded salt, grain, spices, and metal stopped at Romrod, carrying fine goods, such as a richly decorated leather saddle that Friedrich believes was embroidered with copper thread in Morocco and traded through Italy. Another unique find was a bronze object that could fit in the palm of my hand and flip open like a makeup compact.

Bécause of its scallop-shell shape, which is associated with St. James, scholars believe the piece was obtained by someone who made a pilgrimage to the saint's shrine in Santiago de Compostela in northwestern Spain. It would have been worn as a type of amulet for protection against evil, a reminder of how important religion was in medieval life.

In the late 14th century, Romrod was sold to the dukes of the state of Hessen, who over time tore down the old stone defensive structure and replaced it with the lavish edifice that stands today. By the 16th century, castles had become more or less obsolete. Following the Crusades, improvements in warfare techniques rendered them powerless against new weapons, such as cannons, and castles became shows of wealth rather than strength. In later centuries, Romrod's exterior was stuccoed eggshell white, to make the low-lying abode visible and impressive from miles away. Eventually, more and more decorative elements were added and the castle was ultimately converted into a hunting lodge and countryside retreat. Among its famous guests were Czar Nicholas II of Russia and his wife Alexandra, sister of the castle's owner Ernst Ludwig, the last grand duke of the state of Hessen-Darmstadt. (Ernst and Alexandra were grandchildren of Queen Victoria of England.) Alexandra had fond childhood memories of summers at the castle and always kept a painting of Schloß Romrod in her personal chambers at the royal palace near St. Petersburg.

RIEDRICH IS ONLY NOW going widely public with her findings because she has finally had enough time to research them thoroughly. She is writing a book about the site, which will be published later this year, and is working on a dissertation about the wooden castle. In the meantime, the artifacts from Romrod have meant a great deal to those outside the archaeological community. "For the people who live here, they're part of their history," says Feußner. "They're part of the whole network of knowl-

edge that forms [German] society." He believes that the site has an even broader appeal. "We have visitors from the U.S. who trace their roots back to Romrod," he says. "It's part of their history, too, because it's their great, great, great grandfather who worked on the castle."

The discoveries are also significant to the people of Hessen who pride themselves on the quantity and quality of the region's fachwerk. The tradition of woodworking is deeply ingrained in their culture and local folklore. Just a few miles away from Schloß Romrod is the village of Alsfeld, founded in 1222, where some residents still live in timber-frame houses that date to medieval times. Alsfeld is also honorary home to Rotkäpchen, or Little Red Riding Hood, who, as the story goes, was almost gobbled up by a wolf in the region's famously thick forests, but was saved by a quick-thinking woodsman.

CLUNK MY SUITCASE down the narrow spiral staircase where dainty royal feet must have once tiptoed to avoid waking the czar of Russia. In the courtyard, all that remains of the excavations are wooden corners set in cobbledover pavement, indicating where the first castle once stood. Although most visitors traipse right over them, I pause for a moment. "The beginning of a castle is not always the wonderful picture of a knight in shining armor," I recall Friedrich saying. "It's the life of a farmer with a large wall around his farm. And then slowly, slowly, slowly, it grows up."

Eti Bonn-Muller is managing editor at ARCHAEOLOGY. Visit www.archaeology.org to see additional finds from the site and for an interview with Baron Jürgen von Dörnberg, owner of Burg Herzberg, a nearby höhenburg that served as an outpost for the knights of Romrod.