

Ruhr-Fellowship 2012



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Vorwort

Von Anfang Juni bis Ende Juli haben zehn amerikanische Studierende auf Einladung des Initiativkreises Ruhr und der Universitätsallianz Metropole Ruhr (UAMR) als Stipendiaten im Ruhrgebiet gastiert. In dieser ereignisreichen Zeit haben sie unsere Hochschul- und Unternehmenslandschaft kennengelernt sowie die Menschen dieser Region ins Herz geschlossen.

Das Ruhr-Fellowship-Programm wurde konzipiert, um das Image der Metropole Ruhr außerhalb ihrer Grenzen zu verbessern und Anreize zu schaffen, junge begabte Menschen von außerhalb für ein Leben und Wirken in der Region zu interessieren. Aus den Rückmeldungen der Ruhr Fellows können wir schließen, dass ein wichtiges Ziel dieses Programms erreicht wurde: Wir konnten Botschafter aus Übersee für den Standort Ruhrgebiet gewinnen, die, zurück in ihrer Heimat, mit ihren positiven für unsere Region werben werden. Einige erwägen sogar, zum Arbeiten und Leben zurückzukommen. Die Rückmeldungen waren durchweg positiv – auch auf Unternehmensseite. Darüber hinaus besteht ein großes Interesse weiterer amerikanischer Universitäten, ebenfalls als Partner an diesem einmaligen Programm zu partizipieren.

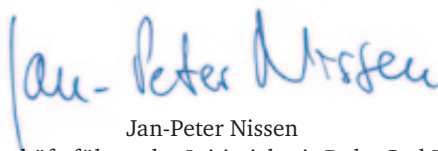
Ruhrgebiet: Look and see

Die Ruhr-Fellowships waren in zwei Programmphasen aufgeteilt: In den ersten vier Wochen besuchten die Stipendiaten eine Summer School. Das akademische Programm organisierte die UAMR, die unter dem Label „ConRuhr“ und unter Federführung der Technischen Universität Dortmund ein Verbindungsbüro in New York betreibt. Die Studierenden erhielten so die Gelegenheit, die drei UAMR-Universitäten, d.h. die Ruhr-Universität Bochum, die Universität Duisburg-Essen sowie die Technische Universität Dortmund, kennenzulernen. In der zweiten Hälfte absolvierten die sieben Studentinnen und drei Studenten ein vierwöchiges Praktikum bei Unternehmen des Initiativkreises Ruhr. Die diesjährigen Praktikumsplätze stellten Evonik, Vaillant Group, ThyssenKrupp, SMS group, Klöckner, Deutsche Bank und der Ruhrverband zur Verfügung.

Das Austauschprogramm sah zudem vor, den Stipendiaten das Ruhrgebiet auch als attraktives Lebensumfeld zu präsentieren: So standen zahlreiche Exkursionen zu kulturellen und landespolitischen Einrichtungen an. In Sprachkursen lernten einige der Studierenden zudem ihre ersten deutschen Wörter kennen.

Das Programm richtet sich vornehmlich an Studierende der Ingenieur- und Naturwissenschaften. Die Fortführung ist bereits für das Jahr 2013 geplant. Auch dann sollen wieder mindestens zehn Studierende aus den USA die Unternehmens- und Wissenschaftslandschaft des Ruhrgebiets kennenlernen.

Mit einem freundlichen Glückauf!



Jan-Peter Nissen

- Geschäftsführer der Initiativkreis Ruhr GmbH -



The Initiativkreis Ruhr and the University Alliance Metropolis Ruhr (UAMR) invited ten American students to the Ruhr Area as scholarship recipients from the beginning of June until the end of July 2012. During this eventful time they not only received a closer look at the educational and industrial landscape, but they also formed bonds and became attached to the region's people.

The Ruhr-Fellowship Program was created to enhance the image of the Ruhr metropolis beyond its borders and to give young talented scholars from outside of the Ruhr Area incentives to become involved in the life and happenings of the region. Our talks with the Ruhr Fellows have shown us that we have achieved an important goal of this program: we were able to gain ten ambassadors for the Ruhr Area from abroad who will each return home and spread the word about their experiences and our region. Some are even considering coming back to work and to live. The feedback has consistently been positive – not only from the students, but also from the companies involved. Moreover, there is a great deal of interest in inviting further American universities to become partners in this unique program.

Ruhrgebiet: look and see

The Ruhr-Fellowships were divided into two program phases: during the first four weeks the fellows attended an academic-cultural summer school. This summer school was organized by the UAMR, which is represented in the U.S. through an academic liaison office in New York City under the label “ConRuhr”, coordinated by TU Dortmund University. This unique cooperation between three universities gave the students the opportunity to become acquainted with each of the UAMR universities – the Ruhr University Bochum, the University of Duisburg-Essen as well as TU Dortmund University. During the second half of the program, all ten students completed a four-week internship at one of Initiativkreis Ruhr's member companies. This year's internships were provided by Evonik, Vaillant Group, ThyssenKrupp, SMS group, Klöckner, Deutsche Bank and Ruhrverband.

Additionally, this exchange program set out to show the fellows the Ruhr Area as an attractive living environment. The various excursions to cultural and historical institutions achieved this, and the German language courses introduced some of the students to their first German words.

The Ruhr-Fellowships are intended primarily for students in the engineering and natural sciences. Their continuation is already being planned for 2013: when we again look forward to welcoming at least ten students from the United States and to showing them the vibrant industrial and scientific landscape of the Ruhr Area.

With best regards and Glückauf!



Prof. Dr. Ursula Gather
- Rektorin der Technischen Universität Dortmund –



Phase 1

Summer School

The Ruhr Fellows spent the month of June in a summer school organized by TU Dortmund University that introduced them to the Ruhr Area's higher education and cultural landscapes. German language courses and visits to relevant departments and research institutes at the UAMR universities gave the Fellows a feel for studying and researching in the Ruhr Area.

The Dortmund Doubles program paired the Ruhr Fellows up with German students, each using his or her interests to show the Fellows new facets of German life – from visiting a festival together in Düsseldorf and exploring the medieval Burg Altena to getting to know the BBQ culture and flying over the countryside in a glider plane.

In company visits throughout the month, the Fellows gained insight into the industries shaping the Ruhr Area and beyond. In a production site at ThyssenKrupp in Duisburg they saw slabs of red hot steel being formed and flattened. At Evonik in Marl they received an overview of work in high risk biotech strategic research. During a tour of the WAZ newspaper in Essen, students met with the Editor-in-Chief and witnessed the process of selecting Euro Championships photos for the sports section. Finally, the highlight was being led over one kilometer underground into a working coal mine at the RAG's Bergwerk Auguste Victoria in Marl. While coal mines in Germany are set to close by 2018, the Fellows learned about RAG's plans for renewable energy and sustainable uses for former mining areas.

A cultural program introduced the Fellows to the heart and soul of the Ruhr cities: cheering on the German national soccer team with thousands of others in “public viewings” during the Euro Championships and touring the 80,000-seat Signal Iduna Park in Dortmund, home of the national champion Borussia Dortmund, the Fellows realized that soccer rules. They got to know Ruhr royalty by visiting Villa Hügel in Essen, the former estate of the Krupp family, and relaxed on Baldeneysee.

Finally, the “Meeting of the Minds” brought the Fellows together with 40 other students from abroad completing research internships at the UAMR and treated them to both the rougher and finer sides of Ruhr culture. In a tour of the LWL Museum Zeche Zollern, an art deco style decommissioned coal mine, the Fellows chuckled when they saw the same clothing on display that they wore in



Auguste Victoria. After a dinner of Currywurst and Reibekuchen the group was treated to a performance of the Ruhr Piano Festival at the Dortmund Concert House.

Both inside and outside of the classroom, these four weeks were an unforgettable learning experience and a real preparation for living and working in the Ruhr Area.

Week 1 · 28.05.2012 – 03.06.2012

FRIDAY	<p>Arrival:</p> <ul style="list-style-type: none"> · Guided walking tour through Dortmund · Dinner at the Restaurant/Brewery "Hövels"
SATURDAY	<p>Official Opening and Welcome with Dr. Barbara Schneider and "Dortmund Doubles" at the International Meeting Center (IBZ)</p>
SUNDAY	<p>Orientation in Dortmund and the surrounding area with "Doubles"</p>

Week 2 · 04.06.2012 – 10.06.2012

MONDAY	German course	Lecture series with Prof. Benjamin Davy: "Ruhrgebiet"	Reception at the Initiativkreis Ruhr
TUESDAY	German course	Lecture series with Prof. Walter Grünzweig: "Germany in Transatlantic Contexts"	Culture and Technology seminar with Prof. Erdogan and Doubles
WEDNESDAY	Excursion ThyssenKrupp in Duisburg		Sommerfest at the Ruhr University Bochum
THURSDAY	Holiday		
FRIDAY	German course	Department tour: Mechanical engineering	International cooking at the IBZ European Championships kick-off
SATURDAY	European Championships: Germany match		
SUNDAY			

Week 3 · 11.06.2012 – 17.06.2012

MONDAY	German course	Lecture series with Prof. Rucktäschel: "Germany's Position within the EU"
TUESDAY	German course	Excursion to RAG Tour: Working coal mine at the Bergwerk Auguste Victoria Marl
WEDNESDAY	Department tour: Biochem-/Chemical Engineering	Meeting of the minds: · Zeche Zollern · Dinner · Klavier-Festival Ruhr
THURSDAY	Ruhr University Bochum: Departmental tours and reception in the Botanical Gardens	
FRIDAY		
SATURDAY		
SUNDAY	European Championships: Germany match	

Week 4 · 18.06.2012 – 24.06.2012

MONDAY	Company visit with "Doubles"		
TUESDAY	German course	Excursion to Signal Iduna Park (BVB soccer stadium)	Culture and technology seminar with Prof. Erdogdu and "Doubles"
WEDNESDAY	German course		Department tour: Communications Eng./Electrical Eng.
THURSDAY	German course	Excursion to Villa Hügel and Baldeneysee in Essen	European Championships: quarter finals
FRIDAY	University of Duisburg-Essen: Departmental tours		European Championships: quarter finals
SATURDAY			
SUNDAY			

Week 5 · 25.06.2012 – 01.07.2012

MONDAY	German course	Excursion to WAZ Newsdesk	International cooking at the IBZ
TUESDAY	German course	Lecture series with Prof. Holger Wormer: "Between Values and News Values in Science Journalism"	
WEDNESDAY	German course	Excursion to Evonik	European championships: semifinal
THURSDAY	German course	Sommerfest TU Dortmund: Meeting with Rector Prof. Ursula Gather	
FRIDAY			
SATURDAY	Night of Industrial Culture		
SUNDAY	European Championships: final		

Heidi Lim berichtet

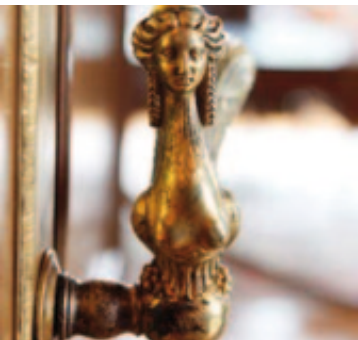
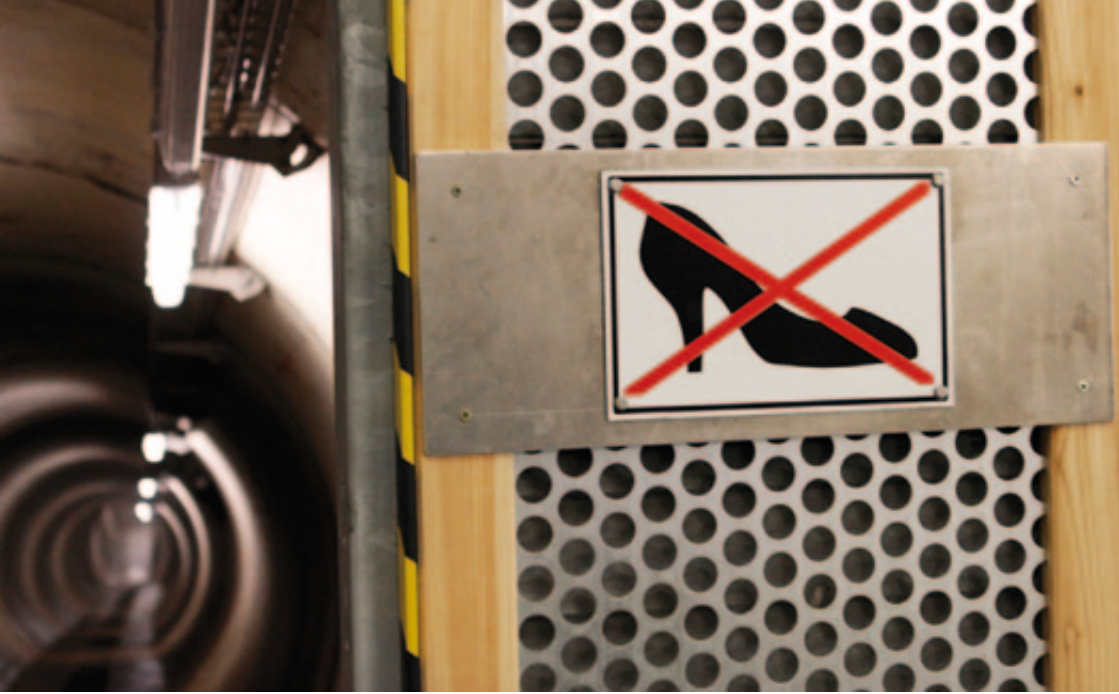
Ruhr-Fellowship

Heidi Lim ist in Las Vegas aufgewachsen und ihr Vater hat in ihrer Erziehung immer wieder die ausgezeichnete Qualität der deutschen Technik, besonders in seiner Leica-Kamera aus den Sechzigern, angepriesen. Vielleicht war es diese Liebe zur deutschen Technik, die ihn dazu gebracht hat, seiner Tochter einen deutschen Namen zu geben. Sie bezeichnet sich selbst als „green geek“, „futurist, environmentalist, visionary“ und beendete gerade ihr zweites Jahr an der Harvard University in Boston im Studiengang „Environmental Engineering and Environmental Public Policy“. Aber Heidi ist mehr als ein „green geek“, sie beschreibt sich auch als Unternehmerin, Streberin, Fotografin, Grafik-Designerin, DJ und „tech nerd“. Mit den Erinnerungen an die alte Leica-Kamera ihres Vaters und dem Traum, eines Tages einen BMW zu kaufen, entschied Heidi sich für einen Aufenthalt im Ruhrgebiet. Als Amerikanerin spricht sie natürlich Englisch und darüber hinaus Spanisch, Französisch und sogar ein wenig Chinesisch – Deutsch (noch) nicht. Tatsächlich war sie noch nie außerhalb der USA.



Heidi ist eine von sieben Studentinnen und drei Studenten amerikanischer Eliteuniversitäten, die im Rahmen des Ruhr-Fellowship-Programms die Unternehmens- und Universitätslandschaft des Ruhrgebiets kennengelernt haben. Eine akademisch-kulturelle Summer School an den Ruhrgebiets-Universitäten sowie Praktika haben dabei den Studierenden von der Princeton University, Harvard University, University of Pennsylvania und vom Massachusetts Institute of Technology das Potenzial der Region nähergebracht.





Das akademische Programm für dieses erste Jahr wurde von der Technischen Universität Dortmund (TU) organisiert und fand auf dem Campus der TU statt. Im ersten Monat lernten die Studierenden mehr über die deutsche Sprache und (Ruhrgebiets-)Kultur durch Seminare und mehr über die Forschungslandschaft durch Besuche der ingenieurwissenschaftlichen Fakultäten der TU Dortmund sowie der Ruhr-Universität Bochum und der Universität Duisburg-Essen. Eine Grubenfahrt im Bergwerk Auguste Victoria in Marl und Werksbesichtigungen bei ThyssenKrupp, Evonik und der WAZ Mediengruppe sowie anschließende Diskussionen mit Managern in den Unternehmen rundeten das akademisch-kulturelle Angebot ab und bereiteten die Studierenden auf ihre Praktika in den Unternehmen des Initiativkreises Ruhr vor.

Die Praktika fanden bei den Unternehmen Vaillant Group (Remscheid), Evonik (Marl), ThyssenKrupp (Essen), Deutsche Bank (Dortmund), SMS group (Düsseldorf), Klöckner & Co SE (Duisburg) und beim Ruhrverband in Essen statt, wo Heidi vier Wochen ihr Praktikum absolvierte.

Begleiten Sie Heidi aus Harvard auf dieser Reise durch den Industrie- und Forschungsstandort Ruhrgebiet...

Week 1: First Impressions, Fireworks, Carnival and Cologne



Hello there! My name is Heidi Lim, and I am currently an environmental engineering student at Harvard University. This summer, I'm living in Germany for a unique culture exchange program, the Ruhr-Fellowship, which brings to Germany ten engineering students from the US to learn German and intern for a local company, all while immersing them in German culture. On this blog, I will post my experiences, adventures, food obsessions, and other musings. After a packed first week, I can already tell this is going to be a wild ride. Welcome to Week 1.

First impressions

After 24 hours, involving two flights between Las Vegas and Düsseldorf and an extensive layover with a delicious airport panini, I finally arrived in Germany at 8 in the morning. I and two of my first Ruhr Fellow friends, Dominique and Lauren, were happily greeted by three of our Doubles (think, host friends), who brought us our first taste of Germany: freshly baked pretzels. On the train ride to Dortmund, where we'd be staying, I got a taste of what was to come: this was not the Germany I expected.

I'm not sure exactly what I expected, but I thought at least I was going to see centuries-old buildings amidst pastoral outskirts. What I forgot was that I was right at the heart of the Ruhrgebiet, the historically industrial hub of Germany, built upon coal and steel. In fact, Dortmund was almost completely destroyed during World War II, leaving most of the buildings less than a century old. As we sped towards Düsseldorf, Essen, and finally Dortmund, we saw colorful row houses, intermittent expanses of field, and surprisingly, an array of graffiti gracing the walls astride the railroads.

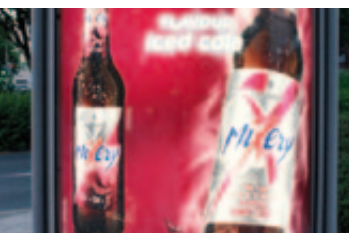
Yet, despite its tall weeds, graffitied surfaces, and tattered billboards, there is a sense of small-town charm in the Ruhr's cities. It's quiet here. At the train station, on the street, practically everywhere we went, people didn't talk as loudly as we did. Often on the trains, when our conversation or laughter gave in to a rare bit of silence, we realized we were the loudest on the train, certainly giving way to our foreign identities.

That night, we went to Hövels, one of the oldest beer factories in the area, where I had my first taste of German food and beer. I ordered an assortment of sausages, ham, potatoes, and sauerkraut, probably a bit more meat-heavy than I had intended. Regardless, the food was fantastic, even the blood sausage, which was a lot saltier than I expected. Afterwards we had dessert, which I found was a lot less sweet than American dessert, but nonetheless tasty.

Now, it's no secret that Germans like their beer. In a later post, I'll tell you just how much they love it, but I will say that beer really is cheaper than water here, especially since restaurants don't serve water gratis, and the water they do serve is sparkling. That's another thing about Germany and its drinks. I honestly think it's the sparkling drink capital of the world; juices, water, you name it, and it's been carbonated.

Fireworks

The next day, our Doubles took us to a Japanese festival in the city of Düsseldorf, which has the largest Japanese population outside of Japan. I must admit that we didn't spend much time at the actual fair, but instead ate a lunch of Döner, bought some drinks, and walked to the other side of the river to grab a spot for the fireworks show. To pass the time, a few of us walked down to the bank of the Rhine and tried to skip stones. After many failed attempts at chucking stones into the river with the advised sideways forehand wrist flick, I found a bit more success with the backhand, achieving (only once) 4 skips. Yay!





At this point I guess I should mention Germany's weather went absolutely berserk the week of our arrival. I'd wake up in the morning with the sun bright in my eyes, yet only half an hour later head outside to a gloomy sky and rain. And I don't mean just any sort of rain. I mean the sort of rain that lingers in the air a bit and comes at you from all sides, the sort of rain I thought was native to Boston. Our Saturday in Düsseldorf was one of those unseasonably cold days, so you can imagine we continued to skip rocks partly because it kept us mildly warm, and partly just because we could say we skipped rocks on the Rhine.

To warm up a bit, the group of us walked around to find a café, and ended up in a very quaint but very busy gelato shop. For about 1,50 Euros, I was able to get some of the richest chocolate and coffee gelatos I've ever had. Yes, I know I said it was cold, but I couldn't resist. When we headed back for the fireworks show, the entire bank of the river and the bridge connecting the two sides of the Rhine were absolutely packed with thousands of people. The show was dazzling in the darkening sky, with the moon just peeking through the clouds and thousands of others around me, just soaking in the moment.

The weekdays included our very first lessons in German, a couple of lectures, and a tour of ThyssenKrupp, major producer of iron and steel (not just elevators). At ThyssenKrupp, we toured the facilities, getting up close to the manufacturing process. We watched a gigantic cauldron containing tons of molten iron being poured and transported to be made into steel. It was really an incredible engineering feat happening right before our eyes, and was only the first of rarities we would encounter.

The Carnival

Thursday was Corpus Christi, so because all stores were closed, we did what anyone else would do: go to the carnival! We made our way over to Oberhausen, where the annual fair was in full swing, as it had been for the past 400 or so years. I had my very first taste of bratwurst and a local delicacy called currywurst, which is basically sliced bratwurst doused in curried ketchup sauce and served with a roll. If that doesn't sound too appealing to you, I'll have you know bratwurst tastes good in any form. We had cream-flavored ice cream, a delicacy that apparently only comes out at the fair, and munched on chocolate-covered fruits.





Weekend Trip 1: Köln

On Saturday, a group of us took a day trip to Cologne (which, by the way is actually spelled Köln, pronounced as one syllable, rather than the bi-syllabic KOL-own we are used to). Just looking out of the window as we approached the station, we could see the gorgeous Kölner Dom looming above us. I imagined this must have been how Harry Potter felt the first time his train neared Hogwarts castle.

I don't think I've ever seen a building as gorgeous and breathtaking as the Kölner Dom. Within a minute of walking inside, I recall telling Allison, one of the other Ruhr Fellows, that there was no possible way to capture its beauty with my camera, although I did try. I won't elaborate here, for sake of brevity, but I believe the photos should help show its beauty.

Next, we headed to the EL-DE House, an old Nazi prison. Never before had I been so close to history. The basement once served as a living nightmare, a jail for many wrongly accused of crimes against the Third Reich. The inscriptions of agony, terror, and torture that were etched into the yellowed walls were absolutely chilling. It was so strange to think that decades ago, the innocent were forced into the very cells we were freely walking in and out of. Seeing artifacts in a museum was one thing, but this, this was something different.

After lunch on the river, we took a more lighthearted tour of the famous chocolate museum, which was mostly a history museum with a rainforest and a few chocolate samples. It also served as easy advertising for chocolate companies like Lindt and Kinder (from Ferrero), mostly because I'm sure I wasn't the only one craving for the stuff the entire time.

That night, we got back just in time for the first German Euro Championships game, and made it over to Westfalenhallen for a public viewing. There, we found thousands of rowdy (and many drunk) German fans watching. I'm not a huge fan of *fussball*, but the experience of watching with thousands of devoted fans was certainly more enjoyable than anything I could watch on TV. At every yellow card pulled on the German team, hisses and boos, with every German move towards the imminent win, cheering and beer thrown into the air. We won, 1-0. Yes, I'm definitely rooting for the German team.

It was an incredibly packed week, but also a really relaxing one. The days seem longer here. In any case, the sky (with or without sun) is still fairly light outside even at 9 PM, which is really disorienting after being inside for a while. Here, time seems to slow. I'm usually the slowest eater in a group of friends or family, but here, even after my meal is finished, the group almost always sticks around for dessert or another round of drinks, just enjoying each other's company, actually taking time to taste the life around them. I'm going to make the most of these couple of months, drink it in, and savor every last drop.

Week 2: Food Education, Coal Mining and Uni Bochum

Our days at the University started with a healthy helping of German language class, followed by a trip to the Mensa, or dining hall. I'm sure it wasn't as exciting to the students of TU Dortmund, but for me, every day of lunch was a foray into new food. Surprisingly, the meals were pretty cheap, ranging from about 1,35 to 2,45* for a main dish and two side dishes. From my time eating at the Mensa, I've learned a few things about German food. For one, there are a lot of potatoes (Kartoffeln), whether boiled, roasted, in fried pancake form, or in potato salad. I used to think Americans loved their french fries, but that was before I came to Germany. Germans also eat their salad sometimes with yogurt dressing, which is a bit tart but also quite good. Lastly, and this was a revelation from the week before, schnitzel is not a sausage. I definitely wasn't the only Ruhr Fellow who thought so, but schnitzel is indeed veal or pork breaded and pan-fried. Perhaps not the healthiest choice, but definitely delicious.

* If you were confused about why the commas in place of the periods in the amount, that wasn't an error! With numbers, generally where we use commas, Germans use periods. Therefore, when say one thousand and one (1,001), they write it as 1.001.





Coal mining

Tuesday brought one of the most anticipated events of the entire Fellowship: the trip to Bergwerk *Auguste Victoria* and RAG Marl, one of Germany's last remaining active coal mines. It all seems a dream right now, but I have to say it was one of the most incredible experiences I've ever had.

Now, I completely understand that going into a coal mine doesn't seem at all glamorous. The truth is, it wasn't. But it was really awesome. Usually, the 2,000 people allowed to tour the mines each year are company executives, not university students, so it was a complete honor to go on the tour, let alone get so close to the actual operations. It was a rare opportunity that is going to get even rarer, as due to high operational costs, all coal mines in Germany will be shut down by 2018.

After a short briefing, we were separated by gender, and were given (surprisingly clean) rooms to change all of our clothes into the given miner's clothing. When I say all our clothes, I mean ALL of our clothes. Interpret that as you will.

Boots strapped on and ready to go, we snapped a quick photo and crowded into the elevator, which took us 1,131 meters below ground in about a minute and a half. One of our guides said its elevator was as fast as the one in the Empire State Building. By the time we reached the bottom, I was already sweating from the layers of thick fabric I was wearing, and I was told it was just about to get hotter.

The entire time, I couldn't help thinking a) of *October Sky* and b) that I was in some sort of James Bond film, because all of our guides spoke with thick German accents. We boarded a small, dingy train, and took it through the dark. At some point, we heard a huge CLANK, and Lea, our student coordinator, asked our host if that was normal. "Nein," he said, proceeding to tell us it only happens once or twice a year. All of us exchanged glances and knew we were thinking the same thing. Is this the appropriate time to panic? Thank goodness, the train started again a few minutes later, and when we reached our destination, we were surprisingly greeted by cool air, a sign of improved coal mine ventilation systems.

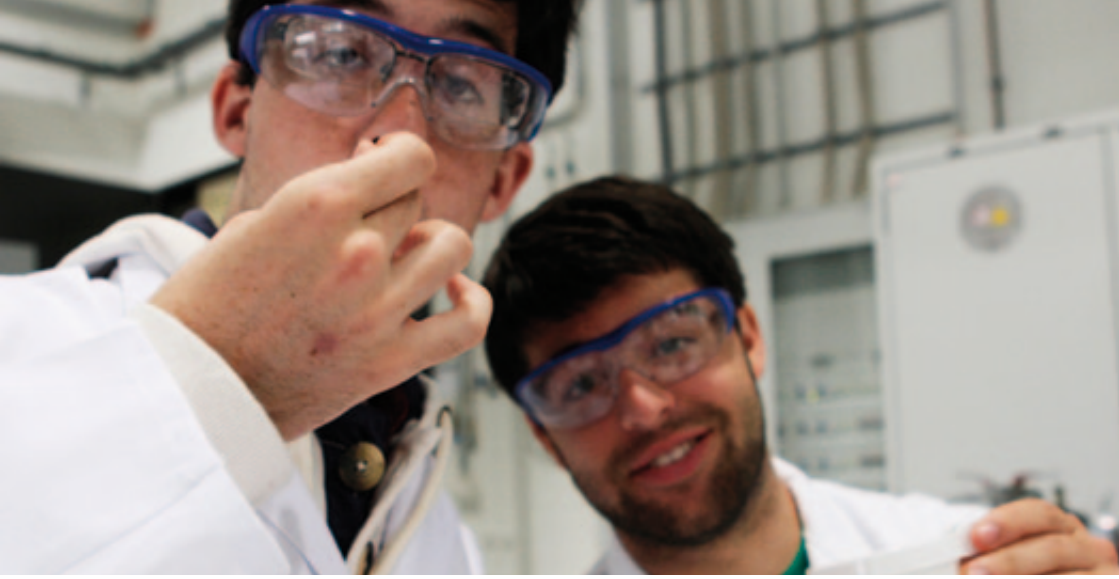


We clumsily walked through black murk, machinery, and soot, finally arriving just about ten feet from the conveyor belt carrying away black gold (coal) and rock. The shiny stuff, we learned, was coal. Now, I won't preach anything as an environmentalist, but you can imagine I felt a sort of strange connection with the stuff, a nod to the past and a look to the future. We kept walking, and came close to a gigantic drilling mechanism. In a cloud of mist and black soot, this machine obliterated an entire black wall of rock right before our eyes. It was an incredible piece of machinery to behold, environmental beliefs aside. As an engineer, I was in awe.

When we were back on top of land, we were covered in black coal dust and dirt, yet, our hosts insisted we eat dinner first. If we were dressed like miners, we were going to eat like them, too. It was quite comical actually. Here were a bunch of American Ivy League students sitting at a table with German miners, eating classy finger foods and covered head to toe with soot. This was definitely an experience I will never forget.

The next day, we went to the LWL Industriemuseum Zeche Zollern in Dortmund, an old coal turned into a mining museum, for an excursion with all of the other American, Canadian and British students who are working at one of the partner universities for the summer. It was strange seeing a museum about what we just saw the day before. When we got to the part about miner clothing, we were absolutely shocked to see the very same outfits we wore the day before! The tour included a trip to the top of a huge tower overlooking the mine, where we chatted and took pictures together, bonding with a bunch of our newest friends.





Uni Bochum

Although we attended classes at TU Dortmund, the Ruhr-Fellowship is actually also made possible by two other universities, the Ruhr University Bochum and the University of Duisburg-Essen, and Thursday was our first trip to Uni Bochum. Arriving on campus (of course by train) felt like we had just arrived at TU Dortmund, but on a hill. The architecture was primarily concrete, just like TU Dortmund, and later I learned from one of our hosts that after the war, the local universities were built quickly, leaving them all to the basic same facade.

We toured a few labs, saw levitating water droplets, and ate delicious liquid nitrogen gems of fruit extract on frozen yogurt. We visited the roof of one building, which had a gorgeous view of the surrounding area. To top it off, we attended an international student dinner in the botanical gardens of the university, which was a refreshing breath of relaxation and a fantastic way to end the week.



Week 3: Escalators, Recycling, Villa Hügel, Uni Duisburg-Essen and Burg Altena

When I think of Germany, I think of the color green. Yes, I realize green isn't even on the German flag, but nearly everywhere the grass grows thick and the trees are abundant. It must have to do with the abundant precipitation we've had the chance to experience this past month... I also think of Germany as not just literally green, but also good at being "green." I knew Europe was forward-thinking when it came to being environmentally-friendly, but it's another thing to actually be here and see it firsthand. Besides the smaller cars, the wind turbines, and the charge for plastic bags at the grocery store, there are a couple more things that make Germany greener than the The States.

Escalators

I don't know about you, but when I see an empty escalator continuing to run, I can't help but think about the electricity it's wasting. That's why I was so excited to see that many escalators in Germany, such as those in the underground rail stations, stop running until someone steps on them. It's an effective and simple way to save energy, and I hope they catch on worldwide.

Recycling

On Tuesday, we had our second meeting with the Doubles to discuss technological advances and what they mean in both the US and German contexts. I chose the plastic bottle, because I'm fascinated that almost every German here recycles. Why? Because the government not only pays them to, but also makes it easy to do so. At every grocery store, in the school Mensa, and in other public places, there are receptacles in the walls in which plastic and glass bottles can be exchanged for money. I don't mean just 5 cents per bottle, either. Some of the larger plastic bottles can be exchanged for 25 cents! In America, where 80% of its plastic bottles end up in landfills, recycling for money can be a hassle and many don't do so. Despite a few small efforts to implement better recycling programs, the majority of recycling-for-money programs involves a long drive to a waste facility, a trip most would not go out of their way to take.

Simply put, it pays to recycle in Germany, so more people do it.

Local pride

Despite the five years I played soccer as a little girl, I had little interest in soccer (*Fußball*) before I came here, but it's nearly impossible not to feel a pull to the sport when living in Germany. Dortmund is home to one of the largest soccer stadiums in Europe as well as one of the most successful teams in Germany, Borussia, or BVB. On Tuesday, we took a tour of the stadium, including its locker rooms, and the press room. We got the chance to imagine the roaring crowds as we walked onto the field from the player entrance. We climbed up to the standing seats, and our guide challenged us to fill the stadium with just our voices. Challenge accepted. In a resounding, arms-raised, BVB chant of "HEY HEY HEEEEYYYYY!" we heard our echoes shout back at us from the other end of the stadium. Because it's the off-season, we are unable to attend a BVB game, but I can only imagine how incredibly loud and rowdy it must get when the stadium is full!

Villa Hügel and Baldeneysee

On Thursday, Sam (my Double) took us to the Krupp family (think, ThyssenKrupp) residence, Villa Hügel. The mansion-turned-museum was gorgeous and enormous, what you'd expect of a steel dynasty's residence. The property was always a place of entertainment, once catering to the likes of the German emperor, and now, to concertgoers and museum visitors. The unique thing about the property was that although it was maintained as a museum, it felt more like just visiting an ornate residence (as if that's a normal thing to do, anyway). The furniture was mostly right out in the open, rather than in cases or behind ropes, although we still were not allowed to touch them. The residence was decorated mostly as it was in its glory days, making it easy to imagine the grandeur at its prime. My favorite part was seeing the very tapestry that was painted in the background of the Krupp family portrait hanging on the wall in the next room. It was quite an intimate way to learn about one of Germany's most influential families.

After the tour, we took a relaxing boat tour around Baldeneysee, a lake quite close to the Villa. Over our two-hour-trip circling the lake, we soaked up a rare bout of German sun and chatted over drinks, admiring the beauty of the Ruhrgebiet as we floated along.





Germany wins!

Friday night, we met up with a bunch of the other American students we met at the Meeting of the Minds, and set out to watch the Euro Championships quarter finals. The public viewing in the city center was completely full, so we walked to a crowded local café and watched on a smaller screen with some hot chocolate and beer. Besides a few brave Greece fans, the couple hundred Germany fans around us went absolutely berserk as Germany scored four goals, and it was hard not to join in. We won!

Walking back to our dorms afterwards, all of the cars that passed by honked their horns, cheering to each other, with German flags hanging from their windows, black, yellow, and red blurs. I'm so grateful to have been here during Euro Championships, and at the perfect place, too. Germany was victorious once again!

Uni Duisburg-Essen

On Friday, we visited the Duisburg campus of Uni Duisburg-Essen, touring an impressive high-voltage lab, vehicle simulation lab (my very first "driving" experience in Germany), and my favorite, a cargo shipping lab that also tested wave energy systems in a giant pool of water under the campus. After our tour, we walked around the city center, which, with its cobblestones and shop-lined streets, looked almost exactly like Dortmund's city center, which looked a lot like Essen's city center, etc. I'm sure you see the trend here. We saw some very eclectic art, including a five million euro fountain and a colorful (in many ways) recreation of Michelangelo's David. There was also this delicious gelato shop for 90 cents a scoop, where I had a delicious peach frozen yogurt. Dominique found an artisanal wine stall manned by a guy I assume was Gandalf's offspring, dressed in medieval garb. The flavor names were the best part about the wines. Dominique bought a potent blend called "Goblin's Fire," which came in a bottle that looked more like some magical elixir than wine.

Castle time – Burg Altena

On Saturday, we took a trip with Sam to Burg Altena, a medieval castle on top of a tall hill looking over the small town of Altena. The castle was everything you'd imagine a medieval castle to be, a stone fortress replete with church, library, dungeon, and bunkers, which once served as the world's very first hostel. The place was a bit creepy, its winding staircases and dark rooms something straight out of a mystery novel. Nonetheless, it was an incredible display of medieval weaponry and wealth and had gorgeous views of the quaint town of Altena. The steep walk to the top, Burg Altena, and the picturesque town it sits atop, is definitely worth a visit. On the way back to the train station, we hopped along these rocks right on the river, and dared to take a few jumping pictures. I highly recommend it if you visit. Just keep your balance!



Week 4: Last Excursion, Wir Sprechen Deutsch and Night of Industrial Culture

Here we are, already halfway through the program after many company visits, lectures, and German language classes. Over this month, all ten of us have bonded on early morning train rides, on weekend trips around Western Europe, and over meat and potato meals with bottles of pilsener, weißbier, and grapefruit beer. By now, I had figured out how to use the tricky washing machine at our dorms, made crepes for a party of new international friends, and have become so “at home” here in Germany that on my weekend trips outside of the country, I’ve found myself accidentally saying “danke” and “entschuldigung” for “thank you” and “excuse me.” Welcome to Week 4.

The last excursions

On Monday, we visited WAZ, one of Germany’s largest newspapers. We visited their newsroom, the hub of information, and saw the photo team as they photoshopped away, masking, brushing, and cropping to get just the right image for the next day’s issue. We also discussed the merits of online versus print news, leading to our host making the very poignant comment: “Your generation doesn’t go on the Internet. You are on the Internet.” I’m sure you’ll agree, as most probably you’re reading this online.

We also visited Evonik, a large, multinational chemical company headquartered in Essen, main sponsor of Borussia Dortmund, and host company to two Ruhr Fellows, Sara and Dominique. We toured their labs and learned about their daily work and active recruitment in the United States. As usual, after the presentations, we didn’t clap. Instead, here in Germany, it’s common to knock on the table as a sign of approval, a custom we’d gotten used to after a month of excursions and presentations. Afterwards, they graciously treated us to dinner at Feierabendhaus, where we feasted on grilled meats and vegetables, savory treats, and array of fruity and chocolatey desserts. I think my mouth is still watering from that dinner. The fantastic hospitality of the company representatives really made us feel welcome, and after a few courses of food and drink, also very full.

On Thursday, we attended Sommerfest, a food, music, and culture festival at TU Dortmund. On this rare sunny day, we put on our shades, grabbed a few cocktails, and (best of all) ate free bratwurst. The festival included food tables from international groups from all over the world, including China, Mongolia, Syria, Africa, and Turkish Kurdistan, a sign that Western Germany, as I had found out, is very diverse. At one point, the Rector of TU Dortmund, Dr. Ursula Gather, greeted us and welcomed us to the university. We thanked her for the opportunity to spend some time in the university, because we truly were, and are, thankful.

Wir sprechen Deutsch (or at least, I’m getting there)

The fourth week also marked the last of over 11 German language classes with Nina, who taught the advanced students (Tim, Erin, Lisa, and Nick), and Özlem, who taught the beginners (Lauren, Sav, Sara, Dominique, Allison, and me). Incredibly, after only 33 hours of class, I had half a notebook filled with German notes. I am far from fluent, but Özlem did a fantastic job of giving us a German crash course.

Despite the English adaptation of a few German words (i.e. kindergarten, doppelgänger), I had never really encountered it at length before. After living here, I've come to see German as a beautiful, fluid language, albeit quite different from any other language I had studied, Germanic or otherwise. In German, every syllable is pronounced. I think for the first week, at least for me, pronouncing that last syllable required conscious effort. For instance, the very first sentence we learned was "my name is ____": Ich heiÙe [insert name here],* which is pronounced hi-suh, and not, as many of first pronounced it, hise.

Pronunciation is also quite different, with a few extra letters with umlauts (the dots over the i in naïve) indicating sounds difficult to convey through a blog post. However, there are a few distinct differences in pronunciation of letters present in the English alphabet. For instance, in German, the sound of an "s" is like the English "z" and vice versa. "ie" makes an "e" sound and "ei" makes an "i" sound. "v" makes an "f" sound and "w" makes a "v" sound, so "Volkswagen" sound more like Folks Vagon. Whew!

One thing that also throws me off a bit in German is that every noun is assigned a gender, but there are no tricks to figure out that gender of an object. For instance, in Spanish, something ending with "a" is most likely feminine, and something ending with "o" is masculine, but such is not the case in German. There are no tricks. You simply have to learn every noun with its gender.

There are a few key words and phrases that we've learned to use in our daily lives. Please excuse the pronunciations I've attempted to type out, as many sounds in German don't exactly match up with English. I assure you, it's a lot easier to hear these things than to read them:

"Bitte" (sounds like bit-ta): "Bitte" is one of the most versatile words we've learned here. It means "please" or even, in response to a thank you, "you're welcome." If you didn't quite catch what someone said, you can also ask "bitte?"

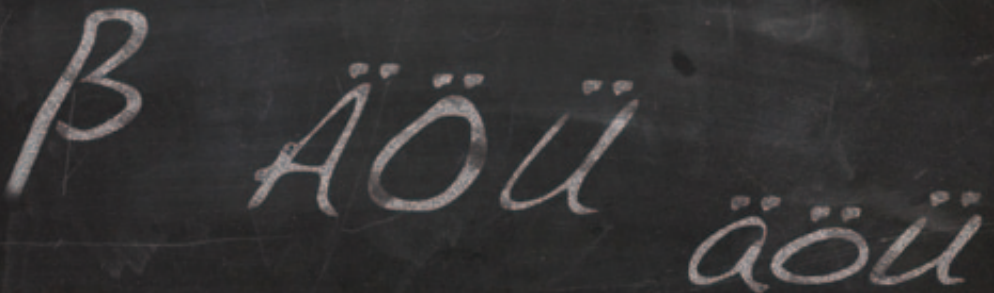
"Entschuldigung" (sounds like en-shool-dee-goong): Simply "excuse me" or "sorry".

"Ich möchte ein Bier, bitte" (very useful, sounds like ick muck-shta aine beer): I would like a beer, please.

"Tschüss" (sounds like chuse) – "good-bye," often said with the manner one might say "toodaloo," if, you know, you use "toodaloo."

And of course, remember your manners and remember to say "Danke" or "Danke schön" (sounds like don-kuh shun) for "thank you," and respond thanks with "bitte" or "bitte schön."

* By the way, that beta-like symbol, the "ß" makes a "ss" sound.



I was out trekking around Paris with Allison and Lisa over the weekend, so Tim Miller, another Ruhr Fellow from University of Pennsylvania, has graciously written a post about his weekend exploits in Dortmund. Photo credits go to Dominique Ingato, a Ruhr Fellow freshly graduated from University of Pennsylvania, and fledgling photographer.

Night of Industrial Culture – weekend guest post by Tim Miller

Built on the solid foundation of steel, coal, and heavy manufacturing, the Ruhr Valley has a long history of raw industrial culture. In more recent history, though, there have been attempts to change the image of the Ruhr into something more refined: in the last couple of decades, industrial focus has shifted away from manufacturing and labor to services, the denizens of the Ruhr Area have built universities, libraries, and concert halls, and a greater value has been placed on the arts.

TU Dortmund, the host school of the Ruhr Fellows, was one product of this cultural change. Another is Dortmund's campaign to promote music and the arts: the Piano Festival, the "Spiel Mit" campaign which encourages musicianship throughout the city, and the rhinoceroses on major thoroughfares in Dortmund are other examples. In fact, the Ruhr Valley was so effective in its cultural transformation that it was named European Capital of Culture in 2010.

One of the most interesting products of the Ruhr Valley's cultural transformation is the Night of Industrial Culture, also called "Extraschicht". The event has been held once a year since 2001 and ties the knot between the Ruhr Valley's industrial history and cultural present. This year, over 40 locations in Dortmund, Bochum, Essen, and Oberhausen hosted events between 6:00 pm last Saturday and 2:00 am last Sunday.

While we weren't able to hit all forty, we were able to make it out to four locations. The first was the Dortmund Actien-Brauerei, Dortmund's largest brewery. In addition to being home to six large beer labels since 1868, the DAB boasts an impressive beer museum which details the history of beer, Dortmund, and the brewing process. Of course, a cold glass of fresh Dortmund beer was included in the tour.

After DAB, we took a bus to the Kokerei Hansa, a coking facility fed by local coal mines. While the facility officially shut down in 1992, the machinery and infrastructure remain a testament to German engineering. Our tour of the facility, starting with the coal wagons, moving on to the ovens, and ending with chemical treatment was complimented by live music and spectacular lighting. We also witnessed an ultra-modern art exhibition, although I must admit I use the word 'art' loosely: the act was primarily half-naked, white-afro'd German men bathing with Ikea furniture in slow motion. Like I said – art.

Next on the ticket was Urbanatix, a spectacle at the Jahrhunderthalle in Bochum, which included music, dancing, gymnastics, BMX trick bikers, pole dancing, and contortionism. The show was open-air and extremely well-attended, and, for those who could see above the crowd, very impressive. Most of the acts had an industrial or mechanical bend, and the stage looked like something out of a steampunk storybook. The show ended around midnight.

Finally, we returned to Dortmund for an art exhibit in the recently renovated Dortmunder U, a former brewery converted into a cultural center. The building had seven floors, each with a different style of art, ranging from 3D-films to sound-rooms to still portraits. On the topmost floor was a disco, which we also visited. Unfortunately, though, not much was going on around 2:00 – presumably, the party would start a little later.

All in all, the evening was not what I had expected: it was significantly more historical and scientific than I had imagined. Nonetheless, it was extremely informative, and it was a very appropriate end to a month of attempting to absorb as much of the Ruhr Valley culture as possible.



Week 5: Starting Work, 4th of July Abroad, Mongolian BBQ, Garden Party with Sam, and Munich

And now the real work begins

Bright and early on Monday, we all set off to our first day of work – it also happened to be the first day in a month we would all be separated. I took the 25-minute train ride with Allison and Lauren to Essen, where they headed to catch a tram to ThyssenKrupp, and I walked over the footbridge and down a peaceful shaded path to Ruhrverband, a utility company that manages much of the Ruhrgebiet's water and its uses, from drinking water to hydroelectric power.

Working for a water management association gave me quite a different first week than the others, who were working at ThyssenKrupp, Vaillant Group, Evonik, Klöckner & Co SE, Deutsche Bank and SMS group. When not working in the office writing a report on European Union and United States environmental policy, I spent much

of my week outdoors. I spent Wednesday with the Flussgebietsmanagement, or river management, team, as we met with regional heads in Arnsberg and the surrounding area to see restoration projects of the Ruhr and a tributary, the Möhne river. On Friday, I went with two biologists on my team, Mr. Schweder and Mr. Huber, to check the water supply for a combined sewage system, which essentially meant driving through beautiful German hillsides and searching for small streams on cow-populated farmlands.

The excursions often led us to small rural towns, with postcard-perfect rolling hills, wildflowers, and white farm houses. The clouds drifted along, fluffy and light, against an otherwise crystal blue sky. Essentially, this is exactly what I had imagined Germany would be. One thing I didn't expect, however, was the amount of wind and solar power we saw, even all the way out in this rural area, far away from the city. At one point, we were driving through a wind farm, the beautiful white blades slicing the air. Every once in a while, we'd see an old farm house topped with a roof full of solar panels. As my adviser explained later, the government allowed the farmers to sell their excess electricity to the grid (the common electricity supply), incentivizing the use of solar power.

Fun fact: the "z" and the "y" keys on the keyboards in Germany are swapped from our American keyboards. Just when I thought I had adjusted my muscle memory, I would accidentally type a "z" where a word contained a "y," which was surprisingly





often. After a bit of a struggle, I opted to change the computer language, which made everything go back to "normal."

4th of July – celebrating abroad

On Wednesday, we headed to Westfalenpark, where TU Dortmund was hosting a 4th of July party for American students and other Americanophiles. Of course, there were burgers, and there were also a few new friends. Unfortunately, there were no fireworks, making 2012 the only year I have lacked fireworks on the 4th of July. The entrance to the park (which is massive, by the way) on our end was closed, so we trekked back across the park to leave, which was fine by us, because who doesn't want to frolic around in an awesome park at night, anyway? We ended up playing on a playground for almost an hour, after posing with some of the large animal figures that inhabit the park, as well as the real live flamingoes that actually live in the park.

On Thursday, those of us who remembered ate as little for lunch as possible, because dinner was Mongolian barbecue at Mongo's. With our fantastic program coordinators, Laura and Lea, we stuffed ourselves with delicious Mongolian BBQ while catching up on our week. It was great to see everyone together again, especially since two of the Fellows, Erin and Lisa, had moved in with their host families in towns more than an hour away. It really had only been a few days since we last saw them, but it felt like ages.

Party! Garden style

On Friday, we had the pleasure of visiting Sam's family garden. Now, this isn't just any garden. They have this ingenious thing here where city dwellers with little garden space can rent out a garden plot in this large garden space, grabbing a piece of the green in the city. Sam's family garden was adorable, with its goldfish pond, tiny cottage-like edifice, and garden gnomes, which Allison and Tsesa (a new American friend we met at the 4th of July party) enjoyed very much. They insisted that I take a photo of them with one of the gnomes, and of course, I obliged and





have posted it here. As always, Sam took great care of us, feeding us steaks, sausages, and grilled vegetables well past sundown.

Wochenendreise – Munich

First of all, I have no idea how we came up with the name "Munich" because the German name for this beer capital is München. Hint: it doesn't sound like "Munich!"

After a 6-hour train ride on a 4 AM train, Nick, Lauren, Allison, Dominique, and I arrived in Munich. After checking into our hostels, we split up. Nick went his way to the BMW Museum and then the Olympic Park. Dominique headed to the train station to go to the Cinderella castle, Neuschwanstein (we learned later that on her way, she bought herself a dirndl, a traditional Bavarian dress, which she happily wore the next day). The rest of us found a free 3-hour tour by "New Europe Tours," which turned out to be so much more informative and interesting than expected. Our guide, Marcin, had at some point in his life been a jazz musician and, at another, a history lecturer in Wales. Luckily, this weekend, he was our tour guide. We learned about witches, beer, the Third Reich, modern culture, the crazy royal family, an old battle that left a cannonball embedded in a church, and the meticulous post-war reconstruction of that church that embedded the cannonball in the exact same spot, albeit with plaster. It really felt more like a 3-hour historical story time than a walking tour.

After the tour, we went to Odeonsplatz, where the Munich Philharmonic was making the most gorgeous soundcheck any of us had ever heard, the powerful wave of the horn section reaching far past the plaza. In the same square, we visited Theatinerkirche, the church that is completely white on the inside and yellow on the outside, as well as the palace of the royal family, which had some crazy characters, including one who believed he was a chicken.

We had heard from the tour guide that the Hofbräuhaus, although full of history, was also full of tourists, so we instead walked to the famous Augustiner Bräustuben, where we immediately ordered beer in "Maß", the famous Bavarian 1-liter beer mugs. Although the restaurant was busy, our waiter spared no time in bringing our hearty meal of crackling pork knuckle, duck, potatoes, and purple cabbage. So good.

The next day, we sampled the best Bavaria had to offer. Of course, because we were all (mostly) engineering majors, we took a trip to Deutsches Museum, where the first atom splitter work desk resides, as well as other scientific curiosities and discoveries. It was like a playground for nerds like us. Afterwards, we took a stroll through the English Gardens (or rather, around the English Gardens and its scantily-clad sunbathers) and had lunch in the sun at the Chinese Tower, with yet more meat, potatoes, and beer. We took a quick look at the Glockenspiel, which was, with all due respect, rather slow and anticlimactic. Then, we literally ran

after the bus, nearly missed our train, but thankfully got on just in time for the ride back to Dortmund.

Speaking of trains...

Although every day is different here in Germany, the one constant is that we take the train everywhere. In fact, I'm writing this post on a train. I'm sitting next to Allison (she wanted a shout-out).

Almost every day starts with a ride on the local U-Bahn (underground) train over to the main station, or Hauptbahnhof, where smells of freshly baked bread waft through the air. Every city's Hauptbahnhof usually includes a collection of food shops making main stations convenient stops for lunch to-go.

From the Hauptbahnhof, we can take S or RE trains to other cities in North Rhine Westphalia, or other parts of Dortmund, such as the university. The trains here in the Ruhrgebiet are clean, fast, and pretty efficient. There are a few delays now and then, but overall, trains leave on the dot and arrive on time. The seats are comfortable, with some arranged in four facing seats, which are perfect for chatting. On the regional trains, there are small trash cans at every row, and on some, there are head rests that are raised on the sides so one may be able to nap without fear of rolling or drooling onto their neighbor. I was very thankful for this feature, as train rides are definitely prime time for napping.

My favorite aspect of the train system here is that no ticket is required to enter the station. One simply walks into the station and boards the train. Sometimes the ticket officer checks tickets, but most of the time, no one comes around. Because we currently count as students at TU Dortmund, we have student passes, which allows us unlimited access to the regional and local trains. This makes travel incredibly convenient. For long distance travel, such as our trip to Munich, there are faster ICE trains which require another ticket. Overall, public transportation here is incredibly convenient and sometimes even enjoyable.



Week 6: Work Week 2



I started my work week off with a trip down the Oelbach, or “oil river,” with a few Master’s students from Uni Essen and led by one of Ruhrverband’s biologists, Ms. Podraza. Thankfully, it isn’t actually a river of oil, but a river of water (did I warn you ahead of time about my bad jokes?). It was an interesting look through a river’s course, from the source to the mouth, and everywhere in between.

Back in the office on Tuesday, I was helping to correct a few of Ruhrverband’s English translations, a given, I suppose, because I am a native speaker. I have to admit, it was actually fun, and reminded me a lot of the Writing section of the SAT.

On Tuesday night, I had the honor of having dinner with the CEO of Ruhrverband, Dr. Harro Bode, and his wife, at their home. We ended up talking past dinner about everything from German driving culture (most Americans drive just to get from point A to point B while Germans actually experience the act of driving) to differences in German and American drinking cultures (Germans are legally allowed to drink beer at 16, and usually have their first sip in a controlled environment such as their homes, whereas many in America aren’t in such controlled environments when they first drink). Because Mrs. Bode was originally from America, there was certainly an interesting mix of perspectives at the table.

On Wednesday, I went to Uni Essen to visit Professor Niemann and his lab, where they are working on biofuels, fuel cells, and other “green” research. I spent the visit with my very friendly guide, Viktoria, a Ph.D. student at the university. Along the way, I learned some interesting things about Germany and its environmental policy,

including its mandatory ruling that all landfills be covered, making it easy to extract gas for energy.

There is one very different project that stood out: using old mines for hydroelectric power. As you can recall from our underground adventure in Auguste Victoria in Marl, all underground coal mines in Germany will be phased out by 2018. That means the kilometres of coal mines would be abandoned, and that's where this hydroelectric plan comes in. For a year and a half now, Professor Niemann has been working with a team of three other professors and mining companies to store water in these mines and generate hydroelectric power via a pump system. It's quite a novel idea, and I can't wait to see how the project plays out.

On Thursday, I went bomb hunting! We were at the site of a new habitat for this species of toad native to the area, which also happened to be near an old railway line that was bombed in World War II. Through aerial photos provided by the Allied forces after the war, the German government knew where most of the bombs fell, but some of them, which didn't detonate, may still remain buried under the ground even today. For obvious reasons, we had to have the area checked before digging and construction began. Unfortunately, I wasn't suiting up and searching for the bombs myself. My role involved a lot of standing out in mud (because it's raining like crazy here) and watching a bomb squad member walk around in a big mud pit with a metal detector. It was certainly an interesting look into the interplay between historical Germany and modern Germany, though.

The next day, I took an excursion with my advisor, Mr. Weyand, with the class he teaches at Uni Essen, and spent the day with them around the Möhne river. We also looked at two types of fish pass, one natural and one technical, which allow fish to migrate and swim away from hydroelectric dams. Thank goodness, it came on a very rare non-rainy day.

On Friday night, we headed to Julian's (Lisa's Double, who's also a pilot) housewarming party, made some new friends and tried this fantastic game called Leaping Louie, a children's game turned more over-21 friendly, or rather, over-18 friendly. Dominique's Double, Maurice, also taught us how to make this ingenious combination of hot chocolate and Jägermeister, which tasted just like gingerbread. It seems I was learning a lot this week.





Speaking of learning...

The German education system is quite different from the United States. We first noticed this when sometime in early June, when our Doubles revealed they were 22 years old or so, some of them 25. Historically in West Germany, students attend Gymnasium for nine years, which explains the age difference in many of our Doubles from ourselves, but the graduates of next year's class will be the first to have an eight-year education, which poses a numbers issue for universities that will be confronted with twice as many applications.

The German education system starts like many American educations: in kindergarten. Except, unlike in America, kindergarten starts at the age of 2 or 3 and a school so much as a time to play and socialize with other children, much like preschool for Americans.

After kindergarten, at the age of 6 or 7, children go to elementary school for four years and also start to learn English. Foreign language is a must, quite different than our system in America. I regret to say that although I have learned multiple languages in high school, I am not fluent in either of them. Here, students will study a foreign language, mostly English, for at least five years. I find myself sometimes asking for directions, asking "Sprechen Sie Englisch?" and getting a response back in near-perfect, yet German-accented English.

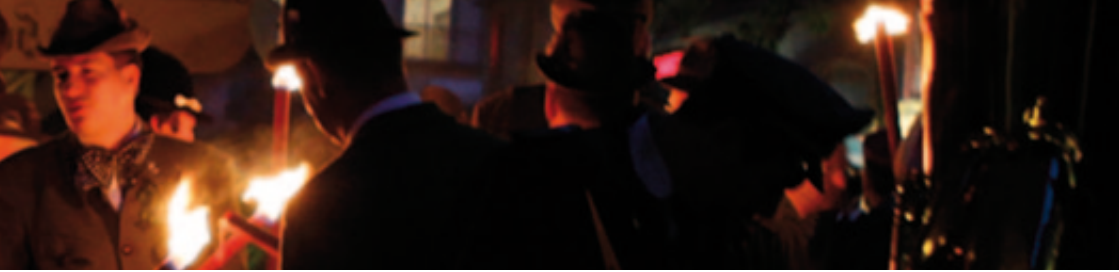
After 4th grade, there are four options maximum depending on where one is. These options are Realschule (6 years), Hauptschule (5 years), Gesamtschule, or Gymnasium (both 8 years starting next year). Gymnasium leads to a higher graduation level, and is equivalent to the high school we are used to in America. At that critical year of 4th grade, students' elementary school teachers gives a recommendation for what type of school the student should attend, based on maturity and schoolwork, but parents have the last say in their child's education. After Hauptschule or Realschule, students are not allowed to study at the university, but students who attend Gymnasium or Gesamtschule can go to university. Of course, students can also choose to switch into these schools if they decide later on they want to go to university. Those who do not attend university go straight into the workforce as construction workers, plumbers, etc.

University in the Ruhr Area is free, a concept which is mind-boggling to us. At some point, universities have tried to charge money, a small fee of 500 euros, but those efforts were denied, and education has made its way back to taxes. Incredibly, the University is a fairly new thing to the Ruhrgebiet, as it was primarily an industrial area for workers, not for the educated. After World War II, the universities in the area were built, and the rest is history.

Here, because education is free, it is often common for students to live at home or live close to home and go to school. I realize staying close to home is common in America, but as for living at home, I can hardly think the American college experience would be the same if we didn't have dorm culture. Regardless, for many in America, going out of state is the way to go for college.

The bachelor's diploma here is 3 years of university, and does not include a general education approach or language requirements, so this degree is earned quicker. In the old diploma system, students needed at least 9 semesters to finish what was called a "Diplom," which was almost equivalent to a Master's degree. As a residual effect of this old system, many companies don't hire those with just a Bachelor's degree, because what they were used to is something not quite the equivalent of an American Master's and a bit more than our Bachelor's. Therefore, many people go on to get their Master's immediately after their Bachelor's degree.

One stand-out for me is that when university students go on "vacation," that means their classes have ended, but their exams and final projects may be scattered



throughout that time period. Therefore, some unlucky students may never really have a long break, but those who are lucky get a well-deserved holiday of relaxation.

Weekend trip – Düsseldorf

For a bit of a break from long weekend trips filled with running around and being as “cultured” as possible without being as touristy as possible, this weekend, many of the Fellows decided to have a relaxing day trip. We decided to explore Düsseldorf, where we spent our very first Saturday, and the state capital. Incidentally, it also is home to Germany’s longest bar scene. That had nothing to do with our decision to go, of course...

This week was the week of the Fun Fair, a yearly carnival held across the Rhine. It also happened to be Bastille Day, so the one bank of the Rhine was lined with French food stalls, decked out with a long string of tables filled with wine, cheese, and pastries. We opted to buy a delicious mini-pizza-like thing topped with cheese, prosciutto, and uh, did I mention cheese? That was just the appetizer. It was the weekend, after all. Afterwards, we had some Düsseldorfer pork steak with grilled onions that I swear was soaked in bacon grease or something... I really wanted a jog after that one.

Afterwards, we met up with Tim and his friends and went bar-hopping. Along the way, we ran into an interesting spectacle: a line of men dressed in traditional formal wear carrying torches. There was a band playing a marching tune for them from a room above one of the pubs, and they started to process. Of course, we followed them, but only to the end of the street, where we turned back to the bar scene, still wondering what we just saw. What I found out later is that we ran into the “Historic Procession” of the St. Sebastianus Shooting Club. It was part of a Schützenfest, a big festival that shooting clubs put on where people shoot at (normally) paper targets and of course, have beer.

It was a bit rainy that day, so we headed back early to spend the night in Dortmund. I left a bit early while everyone went to the pub, but not before we swung on these awesome swing sets the middle of the road in the city center. That’s one cool thing about this area. There are all these cool things to play with in the city center, like this gigantic see-saw near the Hauptbahnhof. Dominique and I once tried to get onto it, but had some trouble just getting on because both of us were holding döners. We’ll have to go back and try again sometime soon.



Week 7: Dam, Berlin and Beer

I spent a total of four days in the office this week, which I think is a record. On the one day I went out, Mr. Weyand and I visited the Ruhrverband fishery at the Möhne Reservoir, where we suited up in fisherman clothes and went onto a boat (tried to suppress singing "I'm on a Boat") and onto the reservoir. There, we caught a dozen fish in handheld nets, spanning about four different species, and one giant eel. These fish would later be documented and used for ecological studies to make sure the reservoir was in a good condition.

Afterwards, I found myself once again in an underground tunnel, this time under the Möhne Dam, one that looked more like a giant stone bridge than a dam. That is, of course, because when I think of a dam, I think of a huge concrete structure, the Hoover Dam. Instead, this dam was nearly 100 years old, and its mossy brown stone facade showed it. During World War II, it had been bombed by the British Navy, which used bouncing bombs to skip over the protective nets on the water. It was rebuilt soon after and stands as it does today, as a tourist attraction and a lookout point for the manmade reservoir.

The next day, I spent a relaxing evening with Mr. Weyand, his wife, and their three family cats. Their kids were out that night, so I guess I was sort of a substitute child for them. Through a much-appreciated home-cooked meal and a chat that lasted hours afterwards, it felt like they were my host family, something only Lisa and Erin had during the program because their companies were far away. For dessert, Mrs. Weyand brought out a bowl of unfamiliar berries. One type was a small, sour, round, bright red berry that came in a cluster, much like





a miniature grape bunch. I realized these were currants, something I'm not used to eating in America. The other berries were the size of cherries and looked like tiny, clear watermelon-patterned balloons. These slightly tart berries, I learned from Mr.Weyand's translation book, were gooseberries, an elusive and mysterious berry I always knew existed but never encountered in America.

Weekend trip – Berlin

Immediately after work on Friday, Nick, Lauren, Dominique, Allison, and I hopped onto the ICE train for the second time on our twin tickets* to go to Berlin.

**Pro tip: for weekend travel, you can buy twin tickets if you have a travel buddy, and will let you travel on the ICE for a pretty good deal – 75 euros or so per trip, which saved us money on our trips to Berlin and München.*

We checked into our hostel, which felt like a familiar college dorm, especially with so many English-speaking students around. Of course, the first thing we did was go to the Brandenburg Gate (Brandenburger Tor), which has served as a symbol of Berlin. At one point, Napoleon had walked where we were, and stole the chariot statue atop the gate. The area around it also included the French and American embassies, which was an interesting contrast to this historical landmark. We then went for some döner and beer, and experienced a different kind of industrial culture at Tresor, Berlin's famed factory-turned-night club.





This bit about Tresor is just for you, Laura!

After an hour of waiting and trying to keep our places in line while the girls in their short dresses talking it up with the guys next to us tried to scoot by, we finally got into one of the priciest clubs in Berlin, a 12 euro cover charge (YOLO?). I won't say much, but I will say there is a lot less creepiness going on at this club than expected, and I was able to see industrial dancing first-hand for the very first time. Instead of groups of guys grinding on groups of girls, we instead found men dancing by themselves, moving their arms about in time with the forever-pulsating beat. The place was full of punk and scene people, dressed with studs, black clothing from head to toe, and the ambiance fit the bill. The club, with its graffitied concrete walls and neon lighting, felt more like a giant two-level alleyway than a club.

The next morning, we took yet another of SANDEMANs NEW Europe free tours. As a forewarning, our tour guide told us to raise our left hand if we had a question – for good reason. It's illegal in Germany to perform the Nazi salute, punishable by a 500 euro fine, and in one case, deportation, so we were warned to be careful. Yet again, there was always a new lesson to learn here in Germany, and always a reminder of the past. Starting at the Brandenburg Gate, we walked through the city's long history, from the Berlin Wall, to the humbling Jewish Memorial, lackluster Checkpoint Charlie, the "Central Memorial of the Federal Republic of Germany for the Victims of War and Tyranny," and the Berliner Dom. Along the way, we also saw a few beer bikes, contraptions that consisted of a platform with wheels, bike pedals, and a table. Upon this contraption, riders could simultaneously pedal and drink beer. A truly ingenious German invention.

Afterwards, we headed to the Pergamon Museum, where the Ishtar Gate from ancient Babylon was reconstructed. I took a class this year on ancient Babylon,





and seeing the very wall itself, with its glazed blue tiles and cuneiform, was incredible. Before we left on Sunday, we quickly visited Schloss Charlottenburg (Schloss means "palace"), which reminded me very much of Palais de Versailles in Paris. Feeling exhausted, I immediately collapsed at the river behind the palace and drifted into a sweet nap while everyone headed to the gardens.

Finally, here's the post you've been waiting for – BIER.

I think it's a very common understanding that beer is amazing in Germany. The beer culture is everywhere. Here, when people drink beer, they taste it, they don't chug it. There are no keg stands here. However, there is a lot of day drinking, and because carrying open containers of alcohol in public is legal, beer is consumed on the train, on the sidewalk, everywhere. Of course, people aren't drinking all the time, but at times like the Euro Championships, it was certainly common to see happy Germans on the U-bahn with a couple of beers.

Germans even know how to open beers in at least a dozen different ways. Since I've been here, I've seen beer bottles opened by a knife, another beer bottle, and even a piece of folded paper. I'll admit, in the States I was never interested in beer culture, but being in Germany has taught me a lot more about the drink, not as a means of alcoholism, but as a part of a culture and a history that is Germany.

Tim is the expert on beer, so he is guest posting the expert stuff here:

Hi guys – Tim Miller again. I penned a post several weeks ago about the Industrial Culture Night (Nacht der Industriekultur) because Heidi was partying in Paris, and I'm back today to talk a little more about a theme I just barely mentioned in that post: beer.





I love beer, so it wasn't pure luck which brought me to Germany this summer. Even people who don't love beer know that some of the best beer in the world is brewed in Germany. What was lucky, though, is that the Ruhr Fellows were stationed in Dortmund. It turns out the Ruhr Valley has some of the most diverse beer styles in the entire country, making Dortmund an excellent home base for any beer connoisseur. But first, a brief history:

While the first beer ever brewed is usually credited to the Sumerians in early 6000 BC, it wasn't until the turn of the first millennium that the first drink we would recognize as "beer" today was brewed. This credit belongs to Brabant King Gambrinus, who first thought of adding hops to beer, sparking a beer revolution. Even today his name is cherished as the brand of an excellent German pilsner and recognized by every true beer lover.

After the introduction of hops, brewing boomed in the Germanic states, eventually evolving into an extremely lucrative business. Different styles began popping up everywhere, not just for local consumption but also for export. Indeed, many cities were built around the brewing industry- Dortmund included.

In 1516, Duke Wilhelm IV of Bavaria enacted the most famous beer legislation ever written, the oldest still-enforced food regulation in the world, and a law which would ensure the quality of German beers for centuries to come. The so-called "purity law" stated that beer could only be produced from three ingredients: malt, hops, and water. Ironically, the active role that yeast plays in fermentation wasn't known to brewers at the time. Several centuries later, the law was modified to allow yeast as well, legitimizing literally every beer on the market.

Since then, German beers have been globally recognized as some of the finest and tastiest beers available.

Now, getting back to the Ruhrgebiet: as mentioned, the Ruhr Valley is one of the most diverse centers of beer production in the country. Nearly everywhere in Germany, the preferred style of beer is Pils, aka Pilsner, a bottom-fermented lager first produced in Plzeň in the Czech Republic. The pale, crisp lager exploded

in popularity and spread through Europe in the 1840's and 1850's, and since then has become possibly the most ubiquitous brewing style in the world.

Dortmund brewers put a spin on the Pilsner. In an attempt to capitalize on exporting opportunities, Dortmunder brewers created a similar beer with a slightly higher gravity and alcohol content than traditional beers. The Dortmunder "Export" style is pale, clean, and crisp. Moreover, the Dortmunder is decidedly hoppier and has a larger body than its Czech predecessor.

Like steel production, mining, and many of the other founding industries of Dortmund, though, the Dortmunder Export has waned in the last century. Nonetheless, two Dortmunder breweries continue to produce this fine beer: DAB, the Dortmunder Actien-Brauerei, which we visited during the Nacht der Industriekultur, and DUB, the Dortmunder Union-Brauerei. The DAB original is available in the US.

Not too far from Dortmund is Düsseldorf, the capital of North Rhine-Westphalia and the center of the Rhine-Ruhr region. Düsseldorf too is well known for its distinct beer style: the Alt. Altbier, which means literally "old [style] beer", appeared in Düsseldorf in the 1800s as brewers tried to resist new techniques which were homogenizing the German beer landscape into a Pilsner paradise. Rather than creating pale, cool-fermenting lagers and Pilsners, brewers used the new pale malts in their old, warm top-fermenting recipes. By allowing these beers to mature in wooden casks for longer periods than what was normal at the time, Düsseldorf brewers created an amber-colored, pale, smokey beer with a perfect balance between the dryness characteristic of a lager and hints of fruitiness.

In Düsseldorf, the most popular Altbier breweries are Schumacher, Schlüssel, and Uerige. Unfortunately, none of these are available in America – the closest German equivalent is Pinkus Organic Münster Alt, a twist on the traditional Düsseldorf style. Similar domestic brews include Dornbusch Ale, from the Mercury Brewing Company in Ipswich, MA, and Longtrail Ale, from Longtrail Brewing in Vermont.

The last beer worth mentioning in the Rheinland is the Kölsch, a beer brewed exclusively in Cologne. The Kölsch is a milder, less bitter cousin of the standard German Pils, which is bright, golden, and very light. The Kölsch has a slightly more modern story than other beer styles: it was first brewed in 1906 by the Sunner brewery, and first dubbed "Kölsch" in 1918. While it was popular in the region before World War II, the destruction of 38 of the 40 breweries in the region caused it largely to die out.

It wasn't until the 1960s that the Kölsch became popular again, and now it's by far the most popular drink in Cologne. The largest four breweries are Früh, Gaffel, Reissdorf, and Kölner Verbund, and according to the Kölsch Convention of 1986 no beers brewed outside of the Cologne region can legally call themselves "Kölsch".

Unlike Altbier, Kölsch is extremely popular in the US, especially among micro-breweries and craft brewers in the Northeast.

Just like soccer teams and accents, beer is an extremely important factor to cultural identity in Germany. Oftentimes, the choice for a given beer is deeply grounded in a region's history. That's why, especially in the Ruhrgebiet, choosing the right beer can be difficult. This decision shouldn't be taken lightly: drinking the wrong beer in the wrong city gets you at best unfriendly looks, and at worst... well, just don't do it.

In any case, there's no small selection of tasty brews to choose from, and the best way to learn more is to buy a couple and get drinking!



Week 8: Autobahn, Pizza Night and Farewell

There were a couple of things about Germany I picked up along the way, but couldn't find the proper place to put in the blog, so instead here is a list to start off my last blog post:

- The Autobahn is not one huge road with no speed limit, it is just the German name for "highway." There are speed suggestions in many places, but you won't be arrested for exceeding the limit. Those who are slow stay on the right, and everyone who wants to go faster drive on the left.
- Most Germans drive a stick shift!
- Many towns in Germany have some sort of mascot. Dortmund's mascot is the winged bull, and it is EVERYWHERE! There are dozens of this beloved mystical animal all over the city, each decorated differently. Berlin's mascot is the bear.
- Don't order tap water here in restaurants, as it's actually a serious faux pas. If you want water "ohne Kohlensäure", or without carbonation, you'll have to pay for it, because it will come in a nice glass bottle. I was serious when I said Germans love their carbonated drinks, and that goes for water as well. As Tim explained once, carbonation was once an indication that the bottled water was bottled at a plant rather than some random people filling up at a normal pump. Germans developed a taste for the stuff, and have enjoyed drinking carbonated water since.
- When you're here, order an Eiskaffee, which is iced coffee with vanilla ice cream. Also, try spaghetti ice, vanilla ice cream that looks like spaghetti, topped with strawberry sauce.





And now onwards to the last week of Ruhr-Fellowship Year 1:

On this, my last week of work, I wrapped up my report and finished up my work, spending most days in the office. On Wednesday, Mr. Weyand and I went to visit the fishery again, and along the way we stopped at the old German town of Soest. Mr. Weyand had remembered from my first blog post that I had expected an older-looking Germany, not the industrial towns of the Ruhrgebiet that I have come to enjoy. This town has remained untouched throughout wars, and was a lot more of what I expected Germany to be: old, quiet, and quaint.

Determined to make the most of our last days together, we stuffed our after-work schedules. On Wednesday, we had pizza and pasta night with the friends we met over the summer, Frederica and Tsesa. We brought a bunch of beers and Sam, and met up for dinner at their cute, bohemian-looking summer apartment, where they shared a floor with a bunch of other international students and two shy chinchillas. On Thursday, Lea and Laura took us to see a variety show, "Toys", which was this quirky mix of acrobatics, comedy, and a woman with incredible upper-body strength and balance who built a small box of bricks and climbed it, all on her hands. On Friday, Laura invited us to her house, and we had a feast on her patio. She was well-stocked with meats, bread, drinks, and other food. Her entire fridge was literally packed. Speaking of her fridge, Laura was sure to point out the ice maker on her fridge, something that is not common in Germany, but apparently something our American-native program coordinator couldn't live without!



Over the weekend, Allison, Lauren and I took a trip to Zurich and drove through the Alps with Lauren's parents and uncle. Of course, I snapped a few shots of myself in the mountains – if you know anything about the book or movie Heidi, you'd understand why I felt at home. Or, at least, I felt some connection. On the way back, we stopped at Neuschwanstein, the Cinderella castle Dominique visited right after she bought her dirndl in Munich. We saw it from a bridge suspended over cliffs and water, a true test of my courage and my willpower to not look down. Nonetheless, the drive was absolutely gorgeous, and was a wonderful last weekend trip.

Monday night was our final farewell dinner, replete with members of the local press, many German bosses, and other people involved in the program. It was like going back in time re-meeting everyone from all our excursions, company visits, and outings over the two months. With an incredible supply of fancy foods, champagne, and beer (did I mention they treated us really well here?), we chatted and celebrated our time in Germany. I found myself sitting between two German Olympians, my CEO, Herr Bode, and one of Lauren's bosses. Germany definitely is never short of surprises. With certificates given, tears shed, and stomachs full, we headed out in the rain (theme of this summer, right?) with Laura and tried to savor the last moments we all had together. As a fitting and almost cliché end, we bid her good-bye at the train station as we pulled away on an RE to return to Dortmund for the last time.

I will forever remember this fellowship in Germany as a transformative experience. In two months, I had already begun to feel at home in Germany. As an environmental engineer, being able to live in one of the most environmentally progressive countries in the world was eye-opening. It was an honor to be part of this program, and to meet so many people in Germany. Even the photos I took could not capture the memories of these two months: going thousands of feet below ground into an active coal mine, making late-night crepes for international students in our dorm, bomb hunting, countless incredible meals and beer, learning German, napping on the train like a pro, hanging out with everyone in the program, and weekend trips across Europe and Germany. These are priceless experiences I never thought I would have, that the Ruhr-Fellowship made possible.

I am so grateful to everyone who was part of the program, especially Laura and Lea, my bosses and team at Ruhrverband, and the other Ruhr Fellows, because you all made this experience unforgettable. Many people have asked me throughout the last week if I would return to Germany, and all I can say is, I'll definitely be back.

Vielen Dank and viele Grüße,
Heidi





Summary

I believe my blog posts have given a good overview of my experience in Germany. This experience in Germany has been incredible, and I will take with me its priceless memories forever. My personal favorite parts of the Fellowship were going into the mine, bomb hunting, eating a delicious meal with Evonik, traveling everywhere, enjoying lots of beer and meat all over Germany, hanging out at your place and eating...basically anything that involves eating. The people were a huge factor in making this experience memorable. Sure, some weren't as close with the group as others, but overall, I think we bonded really well. The Doubles (well, mostly a handful of Doubles) were also a great addition to the program. Sam was especially fantastic, and made sure we were safe no matter where we went.

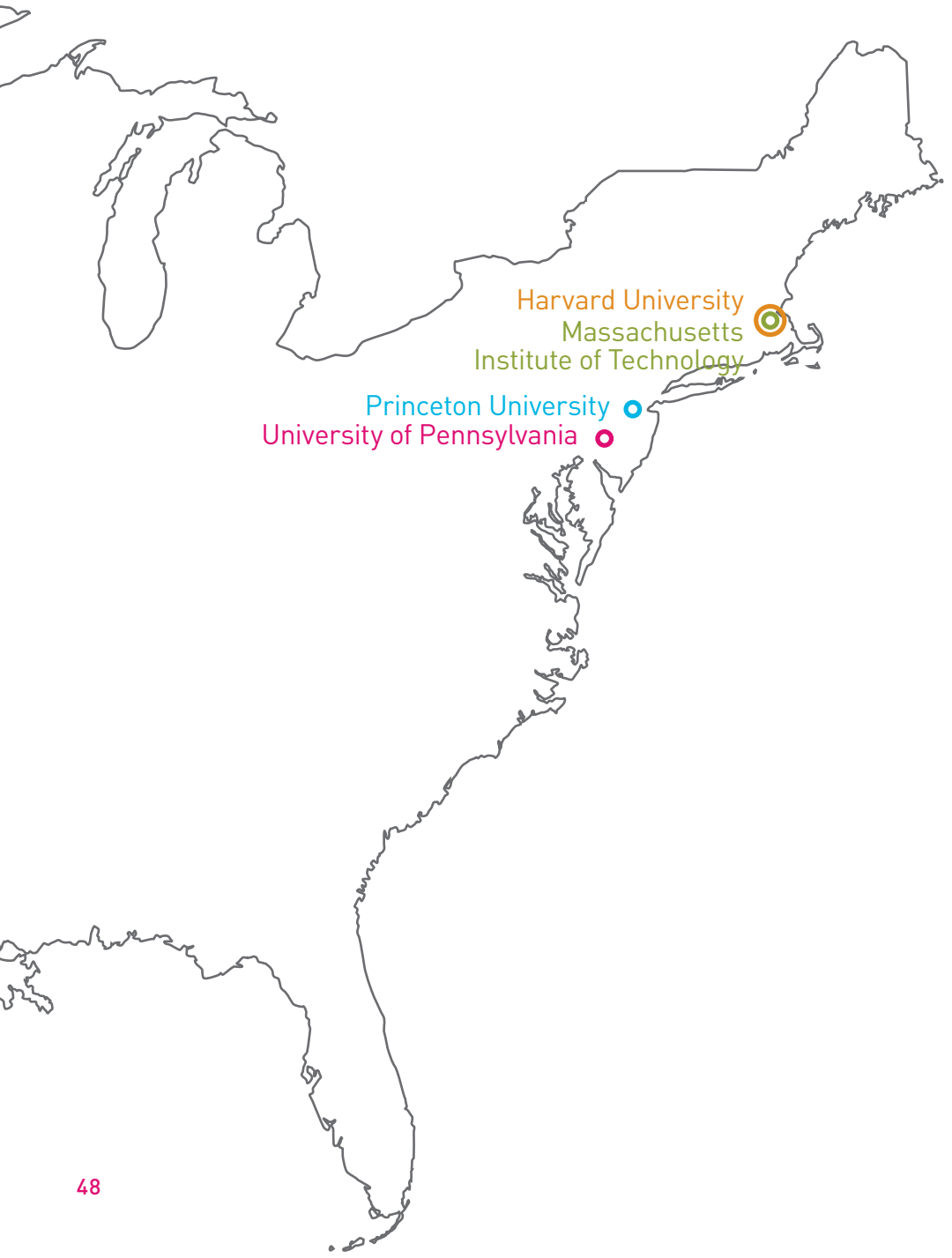
As for the internship, I would say I wish I could have been more useful to the company. I attribute at least part of my lack of usefulness to my inability to speak German. Nonetheless, Ruhrverband was extremely kind to me, and let me shadow the team everywhere, which was fun. I most certainly had more fresh air than the other Fellows, and I really enjoyed being outside. I once wanted to be a biologist, so working with the Flussgebietsmanagement team was really rewarding for me.

I don't know if I'd come to the Ruhr Area to study, mostly because I have my sights set on specific business schools in America when/if I choose to attend business school, and I'd like to stay close to home for school. I would, however, see myself living in Germany to work. Lauren's uncle, who took us around Switzerland/the Alps, was an expat and seems to be living a great life working in Germany for a few years. I can definitely see myself doing the same, especially with Germany's incredible efficiency, friendly people, and beauty. I'd say that with my new connections and my familiarity with Germany, I'd be more comfortable moving there to work than most other foreign countries. Because Germany is so forward-thinking with energy and the environment, I wouldn't be surprised if I found myself in Deutschland in the future. I hope you all will be there for me to visit!

I would recommend the program! It was more than I was looking for – a great way to work and live in another culture, and to make connections. It was two months I will never forget, and it was so incredibly well-run, especially for a first-year program. Kudos to you guys! I absolutely loved it.

One thing I kind of wish I had was a host family, if only for a weekend or a week or so. I really loved living with the other Fellows, but hanging out with Mr. Weyand and his wife, as well as Mr. Bode and his wife, made me sort of wish I had a host family to talk to and hang out with. They gave me a different perspective on life in Germany, and I think it'd be a great addition to the program for every Fellow.

Übersicht der Teilnehmer





Bewerber	Universität	Unternehmen	Stadt
Heidi Lim	Harvard	Ruhrverband	Essen
Erin Mills	Princeton	Vaillant Group	Remscheid
Lisa Liu	MIT	Vaillant Group	Remscheid
Sarah Hanna	UPenn	Evonik	Marl
Dominique Ingato	UPenn	Evonik	Marl
Timothy Miller	UPenn	Klößner	Duisburg
Allison Koenecke	UPenn	ThyssenKrupp	Essen
Lauren Morera	Princeton	ThyssenKrupp	Essen
Nick Parrotta	UPenn	SMS group	Düsseldorf
Sav Gupta	UPenn	Deutsche Bank	Dortmund



Resümees aus Übersee

Notes on the 2012 Ruhr-Fellowship Program

by Dominique Ingato

I initially applied for the Ruhr-Fellowship Program for two reasons: my interest in gaining industry experience at a major company, and my desire to learn more about German culture. As a graduating senior, I knew how important industry experience could be when deciding what path to take after graduate school, which I will begin in the fall. Because of my distant German relatives, I have always hoped to visit Germany and learn more about the country. I am a quarter German and, since only my great-grandparents had any knowledge of German language and culture, I have not had previous opportunities to explore my German roots.



When selected for the program, I was thrilled to learn that I would intern at Evonik following a four-week intensive language course. As a former president of a chemical engineering student network at my university, I have had a great deal of experience networking with industry professionals in the Philadelphia area. I met an Evonik representative early on during my university studies and had been very interested in interning there ever since. I believe that the combination of German language and cultural excursions with the chance to intern at a major company in the Ruhr Area makes the Ruhr-Fellowship Program both unique and extremely attractive to undergraduate students. This combination and my placement at Evonik made accepting the offer from the Ruhr-Fellowship Program the best choice over other internships and research opportunities.

Upon arriving in Germany, I could not have been made to feel more welcomed. It was nice to have German “Doubles” to pick us up at the airport and show us around Dortmund. My Doubles, Maurice and Sebastian, greeted me with my first German pretzel and advice about traveling in the region. I believe that all of the fellows found that the Doubles program was very helpful and many of us even made lasting friendships with our Doubles. For future Ruhr-Fellowships, I might recommend including more scheduled outings with the Doubles. Because of the program's busy schedule during the first month, it was sometimes difficult to find time to meet with our Doubles, and I believe that more interaction with them would have been a great cultural learning experience. Nevertheless, I feel that the inclusion of the Doubles program was one of the major strengths of the Ruhr-Fellowship Program.

For the first month in Germany, our time was divided between German class, lectures, university and engineering tours, and outings. We were all extremely pleased by our German class. As a beginner, I was glad to find that the introductory German language teacher, Özlem, was very ambitious with our lessons. In just four weeks, the beginner course was able to cover a variety of topics and even begin some discussions on advanced grammar. After the course, I really enjoyed being able to practice my German with my friends in the program and those

that I met in Dortmund. I hope to continue studying German in my spare time. Ich will lernen mehr Deutsch!

I found many of our lectures, tours and outings to be just as wonderful as our experience in the German class. I would recommend improving the lectures and seminars by inviting German students to attend as well in order to get another perspective during the discussion portion. However, in general, the seminar series was well organized and interesting. The tours were a great way to see the different departments at TU Dortmund and learn more about some other universities in the area. It was nice to see the similarities and differences between German and American universities. For me personally, the outings, including the company visits, were one of the most exciting parts of the program. We had the opportunity to tour a steel-making plant, explore the industrial culture in the region, and tour a functioning coal mine. These experiences really stand out in my mind as some of the highlights of the summer, and I think that, during program recruitment next year, some of these opportunities might be discussed to excite more students about the program.

After finishing up our German studies, we began our internships throughout the region. For some of us, the trip to work each day was rather long. I would recommend for the future that all students whom have a long commute be offered host families; however, I know this can be difficult to arrange if the students are not fluent in German. Sarah Hanna and I, the two interns at Evonik, were fortunate enough to have Dr. Peter Kreis from Evonik bring us to work each morning, significantly shortening our commute time.

Once at Evonik, I found the internship experience to be fantastic. I had a helpful and kind advisor, Dr. Martin Tuinier, who assigned a project that was appropriate for my experience level and time period of work. Although I cannot discuss



project details outside of Evonik, I will note that the project was extremely interesting for me based on my interest and experience with environmental engineering projects and process engineering. I had the opportunity to do extensive research in a field and even model the process using ASPEN. My advisor allowed me to take the project in the direction I felt best, and I really appreciate his confidence in my work.

This internship has given me a perspective into the German work environment as well as general knowledge of the structure and organization of a major chemical company. This information will be extremely helpful for me as I make important career decisions in the next few years. My research at Evonik has both allowed me to use skills that I developed at Penn and during other internships and given me new skills that I will continue to use in graduate school. Working on such an open-ended project has taught me the importance of planning and time management when it comes to research, and these are skills that I will certainly continue to use in the future.

On a more general note, I enjoyed the overall atmosphere at Evonik a great deal. Everyone at Evonik, no matter his or her position, was friendly and helpful. I found that many people went out of their way to introduce themselves and explain their role at Evonik. Sarah and I were even lucky enough to be given a tour of the Marl site by the department director and a tour of the Essen site by colleagues in HR. I was especially pleased by the number of other young engineers at Evonik. There were many interns and graduate students in the department who were willing to help and give advice about working at Evonik and even just living and traveling in the Ruhr Area. Some of the other interns have become good friends that I will be sure to keep in touch with.

Overall, it would have been difficult to imagine a better internship experience, and I am certain that my decision to accept the Ruhr-Fellowship was the best choice that I could have made. Despite my limited knowledge of the language, I was able to have a successful internship experience at a company that I have always been interested in. Although I will be attending graduate school for the





next five years, I am already considering the possibility of further internships at Evonik or even returning to work there in the future if I have the opportunity. The Ruhr Area is a lovely place with a rich industrial culture, and I would definitely consider returning in the future.

I had a wonderful experience this summer and would be happy to help in any way with future recruitment. I would definitely recommend this program and particularly interning at Evonik to upper-level undergraduate students since I feel that many of the internship projects were well suited to students with some prior engineering experience. While prior German language experience would have been helpful, it was simple to live and work in the region with just a limited knowledge of the language. I would therefore recommend that the program continue to admit those students who have not had prior German language courses.

As a final note, I would like to express my gratitude to all those involved in making this program possible. This summer has been truly wonderful, and I loved learning about German language and culture while working at Evonik. Laura Hope and Lea Thomas have done a truly fabulous job planning the program and making everything possible. Also, I want to extend a special thank you to those involved with the Initiativkreis Ruhr. I hope to see you in the future if I am indeed able to return to the Ruhr Area for future internships or work.

by Allison Koenecke

The day I arrived in Dortmund, I was extremely excited to notice that the CDC elevator was made by ThyssenKrupp, the company at which I would spend a month interning. For the next two months, I would continue to find strong bonds in Germany among the culture, language, and society which I'd come to study and experience.



On my first day, my primary introduction to Germany was the transportation; I was extremely impressed with the German railway system. I was also especially glad that it became easy and straightforward to navigate, since I am usually prone to getting lost in large cities. It was also my first time witnessing the socially acceptable drinking behavior in Germany: that is, bachelor and bachelorette parties! The next big difference between America and Germany came to me via the food and drink we were served that night. For the next two months, I became an avid fan of the meat-and-potatoes diet. In addition, I became accustomed to drinking either seltzer or beer, as opposed to still water. Overall, these two elements – transportation and sustenance – would play a huge role in shaping my time in Germany. By the end of the program, it was almost second-nature to take the train to work or school, and order a delicious schnitzel in the cafeteria.

In the Ruhr Area specifically, I was impressed by the way in which industrialization played such a large role in determining its cities' characteristics. In particular, the addition of technical universities to the area was relatively controversial due to the public view of the cities as merely industrial. Though the area is surely becoming less industrial as technology progresses, it still takes great measures to preserve its grand history as a center of industrial growth. This was shown to me in particular by the tour of the RAG coal mine, and also at the Meeting of the Minds event afterwards. Additionally, the Night of Industrial Culture emphasizes the prowess of the Ruhr Area in these blue-collar dominated areas.

Some of my personal highlights in the program include visiting the aforementioned coal mine, watching the European Championships with the Ruhr Fellows and Doubles, touring the famed BVB stadium, and attending TU Dortmund's Sommerfest 2012. I am continually impressed by the Ruhr program's ability to coordinate all of these amazing excursions, in addition to the plethora of University and lab tours, dinners, etc. While all of these events were extremely interesting, I think my favorite days of the program were not necessarily because of the planned excursions, but rather due to simply speaking with the participants in the program – both American and German. This type of exposure to the culture is much more hands-on, and incomparable to even the best lectures. I am extremely

grateful for the amazing people in the Ruhr program with me, and am sure that my experience could not have been nearly as educational without them. The first month of the program was a wonderful exposure to student life in Germany. The TU Dortmund campus felt welcoming to all of us, and I greatly enjoyed the morning language lessons. The only suggestion I could make is for the classes to be longer and more frequent – that is, perhaps every day of the work week for four hours, as opposed to two or three days for three hours each. These language basics provided the foundation for our ability to navigate the city; the amazing teachers boosted my linguistic confidence such that I was eventually able to order food in German without resorting to English.

In the next month, my internship at ThyssenKrupp involved a 45-minute train ride to Essen each day, with a subsidized lunch in a cafeteria similar to that at TU Dortmund. While the work headquarters was quite campus-like (different buildings for different sectors, groups of friends eating together in the giant dining area, grabbing coffees or ice cream after lunch, etc.), the environment was definitely extremely professional. In fact, “casual Friday” at ThyssenKrupp meant suits with no ties for the men. My work at ThyssenKrupp was a great way for me to experience working in a huge (specifically, 180,000 person) conglomerate. It was particularly intriguing to see how everyone in the company had a particular role, and if one person did not complete their job, the entire department could be stalled for an indefinite period of time. Everyone’s utmost participation was necessary to turn the international cogwheel that is ThyssenKrupp.

My work at ThyssenKrupp dealt with analyzing investment banking reports of competitors, and then researching one competitor specifically. This required for me to do a decent amount of financial research, which is a new field to me as a mathematics major. I was very glad for this opportunity to learn more about economics and management, especially from such a large-scale organization. However, much of this new-gained knowledge was self-taught, and required for me to be extremely pro-active in the work environment, often badgering my German bosses for relevant news articles or financial materials to read. This internship definitely gave me basic groundwork for any future work involving corporate finance. If I decide to follow this route, my work at ThyssenKrupp was a great stepping stone to understanding both companies and also investment banks.

The Ruhr Area was a wonderful place to spend a summer learning about the true culture of Germany, beyond the stereotypes seen in tourist attractions in Berlin or Bavaria. I would highly recommend the program to any engineers or scientists aspiring to work or study internationally. The program makes an amazing effort to expose participants to every aspect of the culture, language, and social dynamic – I am so glad that I had the honor to be a Ruhr Fellow this year.

by Lisa Liu

I would describe myself as a people-focused tourist – I don't particularly care where I am or what I am doing, as long as I am in a place with interesting people and we act with sincere enthusiasm. In this regard, the Ruhr-Fellowship Program delivered the perfect summer opportunity. The American students assembled created an eclectic environment. Yet, despite any disagreements, the conversations brought new perspectives to our attitudes. And through these opportunities to engage in stimulating conversations and to become entrenched in German life, I found this to be my most enriching summer thus far.



What I liked most were the various opportunities to meet Germans, Americans, and others. With some Ruhr Fellows, the camaraderie was deep enough, that I began planning out my next school year to include them in my long term plans. I met other Americans who were working at Dortmund or nearby universities at events such as "Meeting of the Minds" and international cooking events. Many became my weekend travel buddies, and therefore conversation buddies during the hours-long train ride.

But most of all the doubles program, in which each Ruhr Fellow was assigned two German students who acted as our guides, was especially enriching. While we Americans spoke about what we noticed in Germany, I gained a new perspective when Germans asked me questions, revealing their values and interests. In the short time I spent with them, I began to understand the the attitude with which they lived their life, and how it differed or matched mine.

I also liked the dynamic that German student life created. Since there are not as many regularly scheduled homework assignments, it was possible for students to relax in the afternoon if they wanted to. As a result, a few of the Doubles had time to show us to their favorite bars, their favorite places in the region, or any of the many festivals that occurred this summer. On these trips, we could spend hours talking, not worrying about the time ticking by.

And perhaps because I grew attached to the people I met, I didn't travel too far. I went to Madrid and Berlin to visit old American friends; and Paris with some other Ruhr Fellows. Otherwise, I made heavy use of my semester ticket, travelling to Bonn, Duisburg, Essen, Cologne, Düsseldorf, Bochum, and so on. My internship brought me to Remscheid and Wuppertal. So although I didn't see

all that much that Europe had to offer, I regret even more that I didn't explore North Rhine-Westphalia to my heart's content!

Of the places we visited, a few stuck out to me. Signal Iduna Stadium, where we cheered into the empty stands and felt the waves of sound echo back at us. One of our Doubles brought us to a European Championships public viewing, and we felt a similar energy magnified by a live crowd. We joked that it was a testament to German engineering, that their trains could withstand the raucous fans crammed into the subway, beating on the walls while singing with uplifted voices. And in Berlin, some Ruhr Fellows and I took an "underground tour" of an old World War II bunker. Although I knew the war is not ancient history like the Roman ruins in Cologne, it amazed me to see how relevant it was – that stations were closed as often as monthly because of old bombs still being found.

There were also the lectures, which were best when they sparked controversy and discussion. Two memorable lines were "nice cities never last" when talking about the Ruhrgebiet; and "people at large pay for the tuition of the elite" when discussing the German university system. Time and time again, on company and department tours, people would point out the region's industrial past – the influx of immigrants, the delay of establishing higher education, the unemployment and abandoned buildings that resulted in some places when the industry declined. And also people would often ask me how students finance such an expensive education in the US. But taking into consideration stipends and financial aid, I didn't think the answer was obvious, which system was better. I continually encountered these themes in conversations in various contexts.

In addition, I was always impressed by the hospitality of our hosts. Every time we visited a company, a university, a host, I became spoiled into expecting food, a friendly guide, and a knowledgeable discussion. At my company, Vaillant Group, I was introduced to almost everyone in the department and shown around to many of the buildings – no corner was isolated to me. When I settled in at my desk, my advisor dropped off six large bottles of water for me, which was nice considering I don't like the bitterness of coffee enough to take advantage of the cheap coffee they offered to everyone. My advisor encouraged me to ask my co-workers questions to see what they worked on. I was encouraged to become integrated into the department, even though I would only be present for six short weeks.

And while the other Ruhr Fellows likely experienced a similar warm welcome, I think my experience was especially unique. Partly because my department was about one-half students, and therefore we were at similar stages in our lives, so that any differences were obvious; and partly because I had host families, which gave me a peek into German life. I was also happy to find everyone at work was friendly and helpful. If they couldn't answer a question immediately, they would

earnestly follow up with me later. If they weren't able to answer at all, they would direct me to someone who could.

Before coming, I only knew that Vaillant Group worked on heating and cooling systems, and dabbled in photovoltaics. I also loved that they, like many other German companies, felt a responsibility for environmental sustainability. From the communications over the summer with my advisor, I knew that I was going into the MATLAB simulations department. However, despite MATLAB being an important engineering tool, I had minimal exposure to it in my classes. At the very least, I hoped I would walk away from this internship with a better grasp of this tool.

From the beginning, I was given the flexibility of choosing my project. To be honest this freedom frightened me. Part of the reason my adviser encouraged me to talk to everyone was to discover what possibilities existed. Through these quick debriefings, I gravitated toward working with hardware, and so spoke more often with one student about his see-saw. It would be used to demonstrate simulation models, and in the long run, to demonstrate to those without the right technical background the importance and effectiveness of modelling.

Although at first I needed a lot of help, once I gathered the courage to ask, it was easy to get detailed answers. And in the long run, it was extremely useful to be somewhat independent. When my supervisor and the one student were away on vacation, it was nice that I didn't have to wait on someone to tell me what to do next. Rather, I could work toward the goal they set for me any way I wanted.

The office was very open – no walls separated interns from employees, employees from our boss. When I looked up from my computer, everyone seemed efficient and hard at work (which was always good motivation when I felt lazy or sleepy after lunch!). During the weekly meetings, people always had something to discuss, pointing out potential problems and proposing solutions. It was an active dynamic work environment and everyone cared to some degree about the work others were doing.

And yet they were also flexible. There were often moments to chat on a hectic day about the Olympics or whatever was going on. On one really nice day, the students decided to leave work at 2 pm and go to a sunbathing lawn and work a little extra on some other days. Another time, my host dad hosted a somewhat spontaneous BBQ for his colleagues on a Thursday night. It reminded me of the attitude I encountered at the university, that work isn't limited to the week and fun isn't limited to the weekend.

My supervisor, co-workers, and host families broadened my concept of what it is to work in Germany. Whereas the department and company tours usually

focussed only on the department or company, my supervisor and hosts spoke of comparisons between their company and others they had worked at. And at Vaillant Group, I met not only university students, but also Fachhochschule students, a student on a practice semester, Master's students who might return to do their PhD work at the company, and so on. The variety of options for students and workers astounded me.

And so altogether, I would love to come back to Germany. I loved the environment I experienced; the people were all very nice; any and all of my initial fears were refuted. German engineering is so reliable, as I suspected, because it is supported by the hard work of smart people. Although I'm not sure if I can pinpoint my future to the Ruhr Valley, I can undeniably say that my experiences with the academics and industry here have been good.

However, I was unsure whether my experience was singular. My impression was limited to the company that I was with and the people who were there to welcome me. I wondered, did the other Ruhr Fellows also enjoy their internships? Were other companies as internationally oriented as mine? Was the environment I enjoyed cultivated specifically by this company or by German companies in general? These questions could be answered by the other Ruhr Fellows. And while coming together for a final dinner, it wasn't on my mind at the time. I still had two weeks in Germany and was trying to avoid thinking about leaving. Furthermore, it could be potentially awkward to discuss those topics in front of our bosses.

If I came back, I'm not sure what my plans would be. Despite all the department and university tours, I've already committed myself to trying to pursue a Master's degree at my home institution. Whether or not I want to pursue a PhD is a question I haven't even answered yet. Whether or not I would pursue a job in Germany depends on whatever other opportunities come my way. But could I imagine myself living in Germany, going to work in Germany? A definite yes.

At one company tour, the host asked us "What do you think of it here? Don't tell us it's nice – be honest," he insisted. Although I didn't say it at the time, I honestly think it was nice. Yes, perhaps there was more graffiti than I expected, but the people I met, the things I did with them and the conversations we held more than made up for it. I would recommend this program to anyone who would consider a career in Germany, but hasn't had a great deal of exposure to the culture. The close connection we formed with Germans provided in-depth and revealing exposure. And most of all, it gave me contacts that I hope to take advantage of in the future.

by Sav Gupta

The Ruhr-Fellowship was a fantastic opportunity for me to expand my cultural experience and professional network. In this essay, I would like to begin by highlighting some of my important experiences in the Ruhr Area, then move on to describing the key takeaways from my internship, and finally finish with what kind of involvement I envisage with the Ruhr Area and its people going forward.

I visited several cities in the region and beyond – Dortmund, Essen, Bochum, Düsseldorf, Cologne, Aachen and Bonn to name a few. The bulk of my time was spent in Dortmund where I lived and participated in a one-month language program at TU Dortmund. My time in Essen was mostly based on the internship I completed at Deutsche Bank AG. The Ruhr Area gave me the impression of a rapidly evolving region. In the last fifty years, a remarkable transformation seems to have taken place here which has catapulted it from a mere industrial center to an important region for culture and exploration. I saw evidence of this in the many conversations I had with the people here; professors from TU Dortmund, journalists from the WAZ and my colleagues at work. I learnt that the locals are very proud of this region, and work very hard to support and encourage its transformation in whatever way they can. While Germans in general come across as hardworking and determined, the people of Ruhr manifest qualities of ambition and desire that are uniquely inspiring and heartwarming. In terms of some notable cultural experiences, I really enjoyed the Japanese festival in Düsseldorf that I attended in June. There was just something about sitting by the Rhine River on the soft green grass sipping cool beer and absorbing the panorama of festivities all around, that felt like a pure German experience. And the ensuing fireworks rendered a spectacle that earns them a place in my top three firework displays of all time (remember that I hail from India where we celebrate Diwali – an entire festival based on fireworks, so this is a generous compliment!). Another experience I really cherished was the trip to Signal Iduna Park, home of the BVB. This may not sound that important to some people, but for a football fan like me who has never had the opportunity to experience a country where they live and breathe the sport, it was a very passionate moment. I really admire how enthusiastically people in the Ruhr champion their respective football teams (I heard some excellent renditions of the Schalke vs. BVB rivalry in finely nuanced language from the locals), so much so that BVB's victory in the Bundesliga this year even cushioned the blow from the national loss to Italy in the Euro Championships for the people of Dortmund. I view the Ruhr Area's relationship with football as not just a mindless following of some recreational activity, but as a genuine cultural motif that shows the excitement of the people for forces that bring them together. Last but not least, I must pay a few words of tribute to the awesome trip down the coal mines which have spawned many flattering pictures



of me and my fellow Ruhr scholars. No perspective on the Ruhr Area can be well formed if it doesn't account for one of the key industry drivers in the Ruhr Area: mining. I was overwhelmed by the dangerous and somewhat scary surroundings miners work in for long hours. It reminded me once again of the respect that is due to the Ruhr Area for their many contributions to industry. And I must confess that I took a tiny piece of coal in my pocket through which I intend to earn my fortune in life.

The second important part of the program was my internship at Deutsche Bank. DB needs no introduction as the worldwide leader in financial services, and they are one of my top targets for future recruitment. So naturally I was thrilled to have the opportunity to work with them, understand their business and company culture. I was placed in the corporate finance department, which is responsible for providing strategic advice and financial solutions to DB's large cap clients (E.ON, Volkswagen and Evonik to name a few from a list of thousands). My work was an excellent orientation to how we manage relationships with such big clients and to what business model best serves their needs. I gained knowledge of DB's vast array of financial products via training sessions scheduled in Dortmund, Essen, Cologne and Düsseldorf. The great thing about this fellowship was that in contrast to a simple internship, it afforded access to senior and experienced professionals in diverse business areas who were able to provide a unique high level overview of what is happening in the industry. I believe I can leverage both this information and the business network it originated from to good effect in the future, which will be a big leg up for me professionally. Another important point is how consistently nice and supportive people in the company were to me. It is not necessarily the same experience in other offices of the company around the world, where people can sometimes be too engrossed in their fast paced business to provide temporary interns with sufficient input. This goes down in my book as definitely another cultural point for the Ruhr Area.

In terms of how I intend to stay involved with the Ruhr Area going forward, I would definitely like to return here for another experience. I would certainly like to maintain my relationship with all the participating universities in the fellowship program, and stay involved with Deutsche Bank long term. If I ever have the chance to improve my German language skills, I will definitely consider planning a much longer experience in the area. Let me sign off by saying that I would strongly recommend this program to anyone looking for a solid cultural experience in another country, and that I would be happy to serve as an ambassador for the fellowship at my university. I think anyone who is curious, ambitious and internationally oriented will benefit immensely from all the activities that are organized for the fellows. If I have one suggestion for improvement, it would just be to deepen and develop the German language course for beginners so that they are able to enjoy and learn from their experience even more than the enormous amount they already have. Apart from that, this has been a fantastic summer opportunity and I would like to convey my heartiest gratitude, appreciation and regard for TU Dortmund, the Initiativkreis and for all the amazing people in the Ruhr Area. I will never forget you.

by Erin Mills

The Ruhr-Fellowship Program was a wonderful experience and I am incredibly grateful to have had the opportunity to return to Germany for a second summer through an internship program. I have been interested in Germany ever since I was very young because the mother of one of my earliest friends was German. Whenever I went over to my friend's house we had delicious food with weird names and every other summer she traveled to Germany to visit her grandparents, from which I was always sure to receive a postcard of a very exciting- or beautiful-looking place and plenty of amazing chocolate and cola-flavored candy when she returned (the flavor of everything from bubble gum to lollipops was so often cola that I was convinced for quite a few years that cola was to Germany as peanut butter is to the United States). Whenever my friend's mother got angry (which, because of my friend's supremely annoying little brother or my friend's interaction with him, was often), she would use the most wonderfully furious-sounding words with plenty of fricatives in them. I decided that I definitely wanted to learn more about this country of the scrumptious food and scalding language. However, it was not until college that I found my chance.



From the first "Wie geht's?" I knew that more than just learn the language, I wanted to learn the culture in a way that can only be done by immersion. Fortunately, this was made possible by a combination of good fortune and hard work, as in addition to the Princeton-run four-week language immersion program in Munich, I successfully received an eight-week research internship at the TU Clausthal from the DAAD for the summer of 2011. Many stereotypes were broken and others formed during this summer, first in a solidly American support structure of my classmates and then completely on my own in the little town of Clausthal-Zellerfeld. I learned how to make fast friends and find my place in a foreign (in more ways than one) community, which left me at the end of the summer with a new German pen pal, a group photo from the Country Dancing group I'd joined, several memory cards full of pictures, and a mountain of memories and experiences. I feel that these experiences were instrumental in my preparation for success in the Ruhr Fellows program, and I cannot say whether I would have enjoyed it as much without them.

Regardless, I was ecstatic to find, the following December when I began looking for summer opportunities and ran into dead end after dead end, that there was still one possibility of returning to Germany. There was never a question of whether I would accept the fellowship if chosen. My desire to return to Germany and experience the engineering industry and work culture which has literally raised a nation from nothing to one of Europe's strongest economies in a mere 70 years was even stronger than my desire to finally take a summer making money instead of spending it. My goals were clear: gain experience working in a real German

company where I could put my mechanical engineering knowledge to use, and decide which aspects of a career were most important to me in preparation for my looming job search come January. For this reason I jumped at the opportunity to extend my internship when given the option, and I definitely feel that this was the right choice. Four weeks seems too short to accomplish anything of merit, and one of the biggest goals I had for my internship was that my work could be purposeful and of use to the company. I am proud to say that my company has provided me with this opportunity by giving me a relevant problem in the industry to investigate and propose solutions for, and my work this summer will be used as a foundation for several development projects scheduled to begin in the fall. My advisors were clearly interested in my personal growth as well as the goals of their project, and I felt a good balance of guidance and freedom for individual choice from them throughout my internship. I have also clarified in my mind, through my experience and discussions with my co-workers, what specific qualities I will be seeking when I begin attending career fairs and frequenting job-postings websites this coming spring. Similar to last year, most of my key discoveries have been negative. I do not want a job as a research and development engineer, but rather a place in the nitty-gritty of production. I do not want a job with too short a list of responsibilities, but rather something varied enough to keep my interest and stimulate my intellect. I do not want a job with a strict shift schedule but rather a company which is results-oriented and understands that work styles and workloads change from person to person and day to day. Some of these ideas are absolutes and some are more like nagging feelings, but I can confidently say that I am a huge step closer to being ready to step out into the working world because of this program. One of my dreams for a while now has been to work and live in Germany for at least a portion of my life. This was something I wanted to do even before I found out about the Ruhr Fellows program, but my experience here has only strengthened my conviction that the business and working culture in Germany would be a good fit for me and I would really enjoy spending more time in this wonderful country. I credit my internship with this, as it would be quite difficult to get a good sense for the German business culture without having spent time in a German company. Visiting businesses around the region was interesting and mildly informative, but overall I thought that the company and university visits added less to the program than I expected.

Outside of the workday I also enjoyed myself immensely during this program. Some of the opportunities we were given were undeniably unique: plunging 1,100 meters deep into the earth in a working coal mine or walking through an operational steel plant. Aside from the officially organized activities, plenty of other adventures were made possible by our directors, teachers, and “Doubles”. I experienced the German football craze during the European Championships. At home in the States I’m not at all a sports fan, but the energy of the cheering crowd at a public viewing and the unifying sensation of rooting for something so hard that one is willing to make oneself ridiculous for it (and I saw some fairly ridiculous fan costumes) was thoroughly enjoyable. The chance to finally make for myself the mouth-watering dishes which had intrigued me as a child, through the International Cooking Events, was greatly appreciated (my Kartoffelsalat even came out fairly palatable!).

The Doubles repeatedly went above and beyond for us. Mine drove all the way to Düsseldorf airport to pick me up and then transported me directly to the CDC in Dortmund, although they both live in Recklinghausen, and even greeted me with a welcome bag filled with fan gear for the Germany team, gummies, and – of course – a beer. Later they brought me to several public viewings, and even took me out to eat at a Mongolian buffet (not “typisch Deutsch”, but still delicious). I think the Doubles program is one of the highlights of this Fellowship and having German young people to connect to right away can be a tremendous help in experiencing the most interesting and colorful corners of this region.

Extra-Schicht, or the “Night of Industrial Culture”, was a remarkable opportunity to really understand one of the passions of the Ruhr Area, its industry. I’m not clear on whether this event will always fall during the planned timeline of the Ruhr-Fellowship Program, but if it does, I think the program should do more to organize and encourage the Ruhr Fellows to take advantage of this fantastic event. I made the most of it, visiting three separate sights over the course of the evening and being back in bed by 1:30 AM, which is probably a little extreme. However, I would greatly have appreciated more information about the event from the Ruhr Fellows program director and perhaps the opportunity for the program to buy tickets for the participants (either as a treat, if the benefit from the event is considered significant enough, or at least to have the students in turn pay the program for the tickets). I personally believe the Extra-Schicht event to have much more relevance to the culture of the Ruhr Area and the stated purposes of the Ruhr-Fellowship than some of the excursions provided this year (particularly the Signal Iduna park tour and the Villa Hügel tour/boat cruise). I also feel that I was not properly prepared for the event since I had to research it completely on my own initiative and I had no prior knowledge of any of the event sites.

Without a doubt the absolute best experience of this program was one which was not originally included, namely, the opportunity to live with a host family during the internship phase of my fellowship. My host parents are wonderfully hospitable and welcoming, and they truly made every effort to make me feel comfortable and at home while showing me corners of the culture which I would never have been able to experience otherwise. They repeatedly went above and beyond in helping me experience the region, from taking me to a carnival and a circus to feeding me the best of “typisch Deutsch” dishes both homemade and at local restaurants. One weekend when I wanted to visit Luxembourg just to be able to say I’d been there, they drove down with me and spent the day exploring. They made some excuses to make the trip worthwhile – the gas is much cheaper in Luxembourg and they wanted to visit their dog’s groomer who is on the way – but I know they would not have made the trip if I had not decided to go. They both speak English well, but upon my wishes we conversed purely in German, even when I didn’t understand and asked for the meaning of a word. After spending a month chained to a group of loud Americans who hardly knew the language and upon several occasions suspecting that my competence in German exceeded

the English fluency of my interlocutor, I was delighted to finally be able to improve my language skills without feeling condescended to. While I understand that good host families can be a tricky thing to find, and the convenience of having all of the program participants in the same place, I am convinced that there are many aspects of the culture of this country and this region which cannot be experienced otherwise. I would strongly recommend that in future iterations of this program, host families be sought for participants in the city of their assigned companies during the internship phase of the fellowship.

The other characteristic which really moved this program from interesting to enjoyable would be, in my opinion, my previous acquaintance with the German language. Though many people in Germany, particularly in the business world, speak English readily, there is no substitute for seeing a culture through the lens of its language. From shopkeepers in the bakery to my colleagues at work, I feel more included and more empowered to explore Germany because I speak German to a reasonable degree. Since that was one of my goals for my time here, I spoke German with everyone I could during the program, from my Doubles when I met them at the airport to my host family and my advisor at my company. I feel that my skill and confidence in the language has increased, and I have never been ridiculed or frowned upon because of a mistake I made. While I would not suggest fluency in German as a prerequisite for this fellowship, as that would be counterproductive to the goals of the program, I would recommend that applicants be encouraged to get some experience in German before coming and those with prior exposure perhaps be given preference. Because I speak German I was able to find a church on my own, meet wonderful older people who speak no other languages (and learn about their experiences and perspectives), and understand some of the cultural subtleties which simply do not translate into English.

Were I to describe an ideal candidate for this fellowship, it would be a student with prior German exposure, an openness to the idea of studying or working abroad, particularly in Germany, but not completely sure of the industry or area of study which he or she would like to pursue, preferably being towards the end of his or her current period of study (in order to take more immediate advantage of the information and experiences gained through the program), adventurous, self-confident, not afraid of new experiences, and good at problem-solving. People who have no interest in working or studying abroad long-term (even those who would like to travel for recreation), or become easily flustered when outside of their comfort zone, would not enjoy this program, I feel. While the program does a good job balancing structured activities with free time during the month of cultural exposure, the purpose is clearly to give a well-rounded impression of the academic and business culture of the Ruhr Area, and it does that very well. Congratulations on a successful program, and thank you once again for this opportunity.

by Lauren Morera

My time spent in the Ruhr Area was absolutely incredible! The first day I arrived in Düsseldorf I was exhausted because I did not really sleep on the plane, but also excited to see my home for the next two months. I was met at the airport by the Doubles of my new friends Heidi and Dominique and they even brought us welcome pretzels. More importantly however, they carried our bags for us and helped us get into and out of the train, which proved to be more difficult than it sounds. We arrived at the CDC, our new home, and after acting as our translators, the



Doubles left and Heidi, Dominique, and I went venturing out to find the supermarket. Luckily for us, Edeka was close by. After stocking up on food, we all took a nap until it was time to get our first taste of the Ruhr Area with our tour of Dortmund later that night.

Although it was a lot colder than I was expecting initially, the tour of Dortmund was great and I knew I would love living in Dortmund. I think the most striking difference between Dortmund and my hometown in New Jersey was that you could walk to everything in Dortmund and with our semester ticket we could go anywhere in the Ruhr Area for free. This was exciting for me because I had never lived in a city before and I knew that Dortmund would be an area I would come to love. I definitely appreciated the first meal we had in Dortmund as well because it was typical Ruhr Area food from Hövels restaurant. It was definitely a great introduction to Germany, and although I was somewhat overwhelmed by the German language and culture that first day, it became less daunting over time. Another great introduction to the Ruhr Area I experienced in the first few days was going into Düsseldorf for the Japanese culture festival with some of the Doubles. It was very exciting for me to be able to walk along the Rhine and see the city I had flown into while there was so much activity going on. The planned excursions organized through the program were also incredible experiences that I will remember forever. One of my favorites was, of course, the visit to the coal mine. This excursion particularly sticks out in my mind because it was so unique and I actually did not realize that underground coal mines were still in use. Although actually being down in the coal mine was not the most pleasant experience, it gave me a real appreciation for what coal miners do as well as a new perspective on where our energy sources come from.

Another excursion I really enjoyed was visiting the soccer stadium in Dortmund. I thought the tour was really cool and I learned a lot more about soccer than I ever thought I would know. I also watched a lot more soccer in Germany than I ever did in the US because of the Euro Championships, so now I can definitely say that I am the soccer expert in my family. I also really enjoyed the excursion to the WAZ paper because it gave me a new perspective on journalism in both Germany and the US.

I also really enjoyed the German classes we had during the program and I definitely learned a lot from the classes. However, I think I could have learned



even more German if we had had class more often and it had been more intense. I think some of the lectures given by the professors should have been swapped out for more German classes. I also thought that some of the lab tours became a little repetitive and were only really interesting for the mechanical engineers or electrical engineers in our group, of whom there were only four. The other less physics-oriented people in the group, such as myself, could not always follow what was going on during the lab tours.

My internship with ThyssenKrupp AG was a great learning experience for me, but the work I did was not what I had expected to be doing. After talking to my internship advisor before going to Germany, I thought that I would have the opportunity to do more quantitative work, however I ended up doing mostly qualitative work. Regardless, I thought the internship was a great opportunity to develop my communication skills within the workplace because German was the primary language of communication and I did not speak German. I was afraid at first that this would prove to be a big challenge but almost everyone I worked with spoke English very well and was willing to switch languages so that I could understand what was happening. I am definitely going to try to keep in contact with the people I worked with at ThyssenKrupp and I'll use my experience at ThyssenKrupp to shape my internship search going forward. I really enjoyed working for a large, developed company and I definitely want to work for a similar company in the future. After working in Germany, I would also seriously consider working abroad in the future, which I may not have thought about without this experience.

I definitely want to go back to the Ruhr Area sometime and I am considering studying German at Princeton as a result of this experience. I would definitely recommend the Ruhr-Fellowship Program to anyone who is interested in working or studying abroad. The fellowship itself is unique because it gives you the opportunity to both study and have an internship in Germany, which I have never seen offered together in one program. Specifically I would recommend the program to the engineering groups at my school, such as the Society for Women Engineers because engineers are the people who are not required to take language classes at Princeton. Therefore, it can be difficult for engineers to do study abroad programs in general but as this program was specifically tailored for engineers, I think it would be perfect. To be honest I had so much fun and learned so much from this experience that I wish I could participate again next year. However, there are a few areas I think the program could improve. As the internship portion was only one month long, I did not really have time to delve into all the facets of the company I would have liked to explore. I think it might be a good idea to structure the program so that students worked two to three days a week at the internship and did the various excursions and had German class on the other days of the week for the full two months. This setup would be similar to that of German students who both go to school and work at companies, such as ThyssenKrupp, but only work two days a week. Because this suggestion is a pretty drastic change, I think that if the program stays as it was this year, an earlier introduction to the companies might be helpful, just so that we would get more time to know our internship advisor in June before jumping in to work in July.

Overall, I absolutely loved the Ruhr-Fellowship Program as well as the time I spent in the Ruhr Area and I cannot wait to return to Germany!

by Sarah Hanna

My experience in the Ruhr Area was really incredible. For one thing, it was my first time in Germany so naturally I was impressed by all things German: the language, the food, the history... But once I got past my first impression of Germany, I started to dig deeper and look for the real reasons of why I was loving being in Dortmund so much. I realized that it was because I felt like I was surrounded by real people who had unique stories to tell. There is a bold stereotype about Germans that they are cold and harsh. Everyone is always surprised to hear



that I had the complete opposite experience. The people that I met while in Dortmund were funny, generous, and extremely welcoming. Perhaps it was my surprise at the unexpected qualities that I saw in my German friends that led me to fall in love with them so much. However, if that were the case, I would have stopped making friends after the first few Germans that I bonded with. As my travels that continued until my very last weekend would attest, that most certainly was not the case for me. I think I just fell in love with German people in general! Further specifically in the Ruhr Area, I really loved the story of how the region was transformed from being the most industrial in Germany to a hub of innovation and knowledge.

My internship at Evonik Industries was by far one of the most incredible work experiences that I have had thus far in my career. It was the perfect balance between work and play: I spent 4 weeks conducting a literature search that would help the company convert a chemical process to a biochemical one and also managed to make friends with my colleagues and even travel with them on the weekends. The scientific knowledge that I gained may or may not help me in the future, but the contacts I made – professional, personal and both – I hope to maintain for a long time. I met some really amazing people while I was there and I could not have asked for a better placement.

After being in the Ruhr Area for 8 weeks, I have decided that I would like to come back to Aachen RWTH to complete a Master's in Biomedical Engineering. I plan on spending whatever free time I have in the coming year learning German and completing all the necessary tests and documents required for the application.

I would highly recommend the Ruhr-Fellowship Program to anybody who is seriously considering living, studying or working in Germany. I found the program to be a great introduction into what student life in Germany would look like. I learned about the Bachelor/Master set-up, what goes into the thesis, and how (intense) exam periods are for the students. I also was able to travel anywhere in the Ruhr Area using my Semesterticket, and very easily get to other parts of Germany as well as neighboring European cities. Our interactions with the student body at TU Dortmund could have been more frequent, but otherwise I found the experience very enlightening. We also got to go to a lot of fancy and fun dinners, but I doubt that that would be considered a typical student life (haha, many thanks to Laura and Lea!).

My biggest suggestion on how the Ruhr-Fellowship can be improved is essentially to enhance the language portion of the program. I really had high expectations for myself going in to become conversationally fluent by the end of the summer. I was not able to achieve that but I did learn an incredible amount. I find myself wondering if I would have been able to reach my goal if only the lessons had been a bit more intense (structured differently and/or lasted longer) throughout the program. The problem with Germany is that everybody there has such great English... it made it really difficult for me to practice! I would also suggest accommodations that are not the CDC. The location was great and the rooms were agreeable, but I think I would have enjoyed something that was a bit more renovated. All in all they were fine, given how little time we actually spent in the dorms. Other than that I thought the program was extremely well organized and really a great experience.

Vielen Dank für alles! I hope that we will stay in touch. I will definitely let you know if I make it to Aachen next September.

by Timothy Miller

When I heard about the Initiativkreis Ruhr and the Ruhr-Fellowship, I was thrilled. It was exactly what I was looking for: an internship at a major international company, an outlet to Europe, a program to help with acclimation, an administrative contact. It really was exactly what I was looking for in a summer. The Ruhr-Fellowship allowed me to pursue my professional and personal goals all at once.



After taking part in the program, though, I realized that I had gained much more. Specifically, the relationships that I built over the course two months were invaluable. The friends I found – both American and German students – as well as the professional contacts at the TU Dortmund, Klöckner & Co SE, and the other firms in the Initiativkreis were and will continue to be valuable assets for years to come. They're particularly important at my stage of academic development, as I'm starting to consider full-time positions and post-graduation plans.

In addition to friends and contacts, I have the experiences I gained during the program to look back on. The Ruhr program had the advantage of addressing breadth as well as depth. All of the fellows were exposed to a wide range of industries in the Ruhr Area in the month of June and had the opportunity to concentrate on one branch in July. This was as practical as it was educational: while I never actually had my eyes set on a career in coal mining, visiting the Bergwerk Auguste Victoria enabled me to gain a new perspective in the industry which would have otherwise been inconceivable. Similarly, I had never considered working in journalism, but I was thrilled to have the opportunity to ask questions and hear experiences from seasoned professionals at the WAZ.

My internship offered me the chance to delve deeper into one industry. Klöckner was extremely accommodating and made every effort to ensure that I had the chance to fulfill personal goals during my stay. Specifically, they accommodated my request to work in International Product Management in addition to finding a role where I could have a meaningful project in Operations Europe. At every step of the internship, I was asked what my goals and expectations were. The management and Klöckner were excellent in then actually meeting these goals – I consistently felt valued and appreciated in the company, and I undoubtedly learned very much.

Coming back to Penn, I've truly realized the value of my time at Klöckner. Specifically, I've noticed that I have a much better appreciation for human factors. As an engineer and a student with a highly technical background, I believe that I tended to regularly neglect the human aspect in my analysis of project implementations,

corporate developments, and team projects. At Klöckner, I had the opportunity to work on a large-scale CRM software implementation project occurring simultaneously in four Klöckner subsidiaries across Europe. Sitting in on these project workshops and actively taking part in internally marketing the system really exposed me to some of the less apparent challenges in management and the importance of change management. I'm sure that having these experiences and being able to reference them will help me moving forward both academically and professionally.

One comment on the internship is that I would have liked it to be longer. While I did arrange to extend the internship by one week independently, I think even more time would have been better. I valued the projects I had at Klöckner, but it was somewhat disappointing not being able to follow them through to completion.

One possible solution might have been to start the internship in the month of June, concurrently with language classes and company visits. Perhaps the fellows could have been better suited by dedicating two days a week to the internship and three days to language training and company and cultural excursions, or by spending mornings in class and afternoons at the company. This way, interns could get a feel for the corporate environment and mission of the team in June and really get started with a project immediately in July. I would also not have any problem with extending the internship further into the month of August.

Nonetheless, the Ruhr-Fellowship did give me an inside glimpse into the Ruhr-gebiet including the people, culture, industry and environment. Collectively, the program made a compelling case to return. That being said, the entrepreneurial spirit that undergraduates are surrounded by in America does seem to be missing in Germany. I understand that encouraging this is one of the goals of the program, but it could have definitely been more of a focus. Visiting a new company or start-up, if at all possible, would have definitely been a plus. Alternatively, a lecture specifically on entrepreneurship would have been valuable, possibly as an alternative to the culture and technology program. I think stressing entrepreneurship, or at least the potential for entrepreneurship, would go a long way to encouraging high-tech students to come back to the area.

I would and will actively recommend this program to students at Penn. Specifically, I believe engineers enrolled in Mechanical, Systems, Electrical and Chemical Engineering should be focused – the demand for computer scientists and students in Penn's MKSE program seems to be pretty small. I would be happy to help out at any stateside information sessions for the program in the future.

I'd also like to thank Laura Hope, Lea Thomas, the team at Klöckner, and the Initiativkreis Ruhr for making the program possible. As I've mentioned, it was extremely valuable and I was impressed by its execution. Looking back, I'm genuinely surprised that this was the first year that the program was offered, given its level of polish and its overall quality. I'm sure that the program will only continue to grow, and I look forward to hearing about the experiences of the future Ruhr Fellows.

by Nick Parrotta

When most people ask what I did this summer, I usually don't know where to begin because I was able to do so much during my summer in Germany. Rarely do I have the time to go into everything I was able to do, nor am I able to do justice to the wide variety of interesting and memorable experiences I had during those short ten weeks. Between the many planned activities of the Ruhr Fellowship, my internship in Düsseldorf, and many personal trips – both within the Ruhrgebiet, and to the surrounding regions – I was able to explore and enjoy an immense amount of culture, geography, and of course beer.



Some of my favorite memories came from adventures in and around the Ruhrgebiet, a place that has become almost a second home to me. By far the most unique experience was delving over a kilometer underground at the Berwerk Auguste Victoria in authentic coal mining garb. When I first heard about the trip, I thought it would be great to see such a historic industry that combines labor with technology, and that it might be a little dirty. Needless to say, I vastly underestimated what an incredible experience that it would be. I realized things were going to be a bit more intense when we were required to change all of our clothes, lest we start an explosion underground. The entire mine felt as if it were the sheer embodiment of man working to overcome nature, to tame and subdue her while nature stood resolutely and powerfully. We were constantly reminded what a dangerous, special undertaking we were experiencing, and it was all the more invigorating for it. And I must say, I've never been happier to see the sun than after we emerged back to the surface. It was an incredible, once in a lifetime experience that I won't be forgetting any time soon.

My other highlights in the area include attending a wonderful performance by a string quartet and piano, exploring the Burg Altena, and the infamous Night of Industrial Culture. Klavierfest was a wonderful event organized by the Initiativkreis Ruhr which was designed to remind people of the importance, beauty, and heritage of German chamber music. For us, it was a chance to experience a night of classical music inside the wonderful Konzerthaus Dortmund. I was especially struck by a chance encounter at the end of the night, when I was on my way out of the concert hall, where I had a delightful conversation with an older woman. She was so excited to see young people taking interest in the arts, and wanted to know why we were all visiting the Konzerthaus. I did my best to answer her in German, and she was amazingly patient as I worked my way through the conversation. After a few minutes talking about the Ruhr Fellowship program and my time in Germany, she asked me a question that I didn't understand in German; what I didn't realize is that she spoke English fluently as well. Such a chance encounter was so encouraging, to see someone positively affected simply by our presence in the Konzerthaus Dortmund.

Visiting Burg Altena was wonderful, as it was set within a beautiful river valley near Lüdenscheid, and the castle itself was full of interesting historical relics and information. I truly enjoyed spending an afternoon exploring the twisting staircases, rooms full of antique armor, weapons, and tools, and breathtaking views offered by the castle. Finally, the Night of Industrial Culture was an incredibly fun night where we were able to explore an old brewery turned museum, a cookery, watch spectacular performance art, and feast on wurst and bier. I most enjoyed seeing how the German people were so happy to embrace, recall, and celebrate their special relationship with old technological industries like coal mining and steel production. These were only a few of the activities I experienced within the Ruhrgebiet, but I hope that it begins to describe all of the memories I was able to generate this summer, none of which will be forgotten any time soon.

Another wonderful aspect of spending time in Nord Rhein Westfalen was the ease of travel, both throughout Germany and into surrounding countries. During my summer, I was able to visit München, Berlin, Hamburg, Brussels, Rotterdam, and Kopenhagen. All of these cities were amazing places to visit and explore, but for the sake of time, I'll only detail my favorite excursion: a quick 36 hours in München. As a group of five Ruhr Fellows, we decided to leave Dortmund very early one Saturday morning aboard the ICE. I loved the trip, both there and back, as I'm fascinated by high speed rail; traveling through the German countryside at speeds up to 300 km/h was awesome, especially at such comfort and convenience. Once we arrived in the city, we split up so that I could go visit the BMW Welt. Personally, I'm a little obsessed with cars, so the opportunity to visit the factory, mega-showroom, and museum at the Welt made for a fantastic day. Then I spent a few hours in the Olympiapark, which I have to admit was the completely unexpected gem of the trip. The place itself was beautiful (the Alps-like architecture was really cool), but I was also amazed by how well the former Olympic grounds have been transformed into a public space for the whole city to enjoy. The other highlights of my whirlwind tour of Munich include numerous trips to Biergartens, as well as a few hours exploring the Technikmuseum. Obviously the Biergartens were amazing, but for me the real highlight was the technical museum. I was able to visit it for a few hours last summer, but there was still such a huge amount of wonderful technologies and machines for me to see and explore. I feel that after two visits, I've only seen about 40% of the museum; it's such a huge resource that was especially exciting for a mechanical engineering student. Because I've been to Munich before, I was able to focus on a few events and places instead of trying to absorb the whole city at once. Because of this, my trip was busy but relaxed, and focused on just the things that really mattered to me. I can only hope that I find myself in München again soon.

On the less leisurely side of my summer, I also spent four weeks working at SMS Siemag in Düsseldorf learning about the trend towards automation in the steel manufacturing industry. My internship was a sweeping, fast-paced overview of their Electronics & Automation business unit. I moved to a new sub-department each week so that by the end of my month, I had spent time in four distinct sections of the unit. In Contracts & Controlling, I was able to absorb the company's

Product Management Framework which was a workflow and management system designed to streamline and organize the immense process that is starting a new project as a business unit. This was a great system that I will be certain to implement in my future career. In Hardware & Networks, I saw the work that goes into testing and certifying the various components that are used to control the steel manufacturing process. I spent a large amount of time testing and learning to communicate with PLC controllers, and saw how these items are integrated together to form useful solutions for the customer. In Level 1 Systems, I explored motion controllers, which are used to drive high speed, high accuracy movements of motors, actuators, and hydraulics. I really enjoyed this, as I can relate much of it to my interest in mechanical engineering, robotics, and machine design. My final week was spent in Level 2 Control Systems, where I was able to witness the immense amount of planning and testing required before a system can be released to the customer. SMS sets up entire mock control rooms to mimic the usage of their systems, requiring thousands of man-hours, just to make sure that the software and hardware is ready to be installed in the customer's factories. All in all, it was an incredibly fast paced experience that gave me great insight into the steel manufacturing industry, engineering cost estimation, programming, software and hardware development, and good business practices. Another bonus is that I met an incredible number of people within the company; this extended business network is a wonderful asset that I hope to make use of in the future.

Speaking of the future, I feel that my time working at SMS was incredibly valuable, and will certainly be considering the company, the Ruhr area, and Germany as a whole when it comes time to begin my career despite a few obstacles in my way. Working at SMS was a wonderful experience, both due to the aforementioned technical and business learning as well as the work environment. I was very pleased that company encouraged personal relationships between co-workers, as well as superiors and subordinates, as I feel that many American companies lack this familiarity. I'll also miss the endless string of "Mahlzeit!" throughout the office. In the future, I really think that I'll have to pursue a company which offers a similar focus on building relationships between people. I enjoyed my time at SMS, but it also helped me to realize that I'd rather spend my career in smaller firms. I really want a job where I need to vary my daily routines and responsibilities more than what I saw at SMS, and I feel that can only occur in small companies and start-ups, both of which interest me highly.

I can certainly imagine returning to the Ruhrgebiet again, mostly as I already have done so once. I spent the summer of 2011 studying abroad at TU Dortmund, and it was such a great experience that I jumped at the chance to return as a Ruhr Fellow. Thus I feel that after two summers, I can consider Dortmund and

the Ruhrgebiet as a home away from home. I've loved my summers there, and made lots of friends, experiences, and memories. It's also a very different culture from the US, but probably one that I can identify with more. Germans are comparatively well-organized, efficient, and technology driven (both personally and industrially), all of which appeal to my love of engineering. There's also the beer, but that would take another essay to describe my love of German beer!

There are a few drawbacks to the idea of living and working in Germany, mostly owing to my poor German language skills. I still feel uncomfortable speaking in German, and I sadly have no time in my curriculum to pursue the language any further. Thankfully the English fluency rates are incredibly high in Germany, so I have been able to get by with my lackluster German skills and the help of friends. Another problem which may be a little harder to solve, is that my time abroad has made me truly appreciate and miss many of my friends and family back home. I've become quite attached to the social networks I have in place at home, and the prospect of leaving them all behind is daunting. Of course, this may be inescapable for the most part, as I'm certainly not staying in Philadelphia for the rest of my life.

Career wise, Germany is a very smart place for me to find work. The benefits of working there are incredible; just thinking about the vacation days and insurance structure compared to the US is almost enough to motivate me to emigrate now. However, I also have a strong interest in entrepreneurship and start-ups, and I feel that I should move to a culture which values them just as highly.

While I did see in-roads appearing while I was in Germany, the country seems more characterized by large and mid-size companies that move the economy forward efficiently and effectively. Finally, I love cars, and Germany's strong automotive industry is incredibly alluring. Between all of these factors, I'll be considering Germany and the Ruhrgebiet carefully in my future; only time will tell whether I will make the leap.

Overall, I had an incredible summer that will affect me for many years to come. I was able to truly explore Dortmund, the surrounding cities, and many nearby regions, during which I had many memorable experiences. I also spent a month working and learning in Düsseldorf, which was incredibly informative and thought-provoking, and may affect my plans for the future. In my humble opinion, the inaugural year of the Ruhr Fellowship Program was a sweeping success, and I have been very vocal about it to my family, friends, and fellow students here at the University of Pennsylvania. I have encouraged a few people already to consider it for next summer, and hope that I can help the program in any way possible. I'd be more than happy to act as a liaison for the Ruhr Fellows here at Penn. It was an absolutely fantastic way to spend my summer, and I truly believe that it will continue to affect my life and career for years to come.

Die Partner

Wir danken an dieser Stelle ganz herzlich allen Unternehmen, die sich im Pilotjahr im Programm engagiert und Praktikumsplätze zur Verfügung gestellt haben.

Vier Wochen lang haben sie den Studenten die Unternehmenslandschaft im Ruhrgebiet nähergebracht, ihnen zahlreiche spannende Einblicke und Gespräche ermöglicht und damit zu einer Verbesserung des Images der Region über deren Grenzen hinaus beigetragen.

Des Weiteren danken wir allen anderen Beteiligten, die mit viel Herzblut die Realisierung des Programms unterstützt haben. Dies gilt im Besonderen auch für die Kollegen der UAMR, die für die Realisierung des akademischen Programms verantwortlich zeichneten.

Universitätsallianz Metropole Ruhr

In der Universitätsallianz Metropole Ruhr (UAMR) arbeiten die Ruhr-Universität Bochum, die Technische Universität Dortmund und die Universität Duisburg-Essen seit 2007 strategisch zusammen. Unter dem Motto „gemeinsam besser“ erhalten die Forscher/-innen vielfältige Möglichkeiten zur Kooperation und Vernetzung, während die Studierenden von dem großen Angebot an Bachelor- und Masterstudiengängen mit ihren Spezialisierungsmöglichkeiten profitieren.

Über 20 Kooperationen in Forschung, Lehre und Verwaltung steigern durch eine Bündelung der Kräfte die Leistungen der drei Partneruniversitäten.

Mit ca. 100.000 Studierenden, über 1.100 Professoren/-innen sowie 14 Sonderforschungsbereichen ist die UAMR einer der größten und leistungsstärksten Wissenschaftsstandorte Deutschlands.

Die Verbindungsbüros in New York, Moskau und Rio de Janeiro/São Paulo fördern internationale Zusammenarbeit der UAMR.



Deutsche Bank

Die Deutsche Bank ist eine weltweit führende Investmentbank mit einem bedeutenden Privatkundengeschäft. Im Ruhrgebiet ist die Deutsche Bank seit 1925 eine feste Größe und Anlaufpunkt für die persönliche Betreuung in allen Finanzfragen. Privatkunden, Selbstständigen und kleinen bis mittelgroßen Unternehmen steht eine Rundumbetreuung von der Kontoführung über die Beratung bei der Geld- und Wertpapieranlage bis hin zur Finanzierung und Vorsorgeplanung zur Verfügung. Firmenkunden und institutionellen Kunden bietet die Deutsche Bank das ganze Spektrum einer internationalen Investmentbank – von der Zahlungsverkehrsabwicklung über die Unternehmensfinanzierung bis hin zur Begleitung von Börsengängen und der Beratung bei Übernahmen und Fusionen. Das Private Wealth Management der Deutschen Bank entwickelt individuelle Lösungen für vermögende Privatpersonen, Familien und ausgewählte Institutionen.



Evonik,

der kreative Industriekonzern aus Deutschland, ist eines der weltweit führenden Unternehmen der Spezialchemie. Profitables Wachstum und eine nachhaltige Steigerung des Unternehmenswertes stehen im Mittelpunkt der Unternehmensstrategie. Die Aktivitäten des Konzerns sind auf die wichtigen Megatrends Gesundheit, Ernährung, Ressourceneffizienz sowie Globalisierung konzentriert. Evonik profitiert besonders von seiner Innovationskraft und seinen integrierten Technologieplattformen.

Evonik ist in mehr als 100 Ländern der Welt aktiv. Über 33.000 Mitarbeiter erwirtschafteten im Geschäftsjahr 2011 einen Umsatz von rund 14,5 Milliarden und ein operatives Ergebnis (bereinigtes EBITDA) von rund 2,8 Milliarden. Als Arbeitgeber bietet Evonik eine große Vielfalt an erstklassigen Perspektiven – sei es in der kreativen Spitzenforschung, im internationalen Management oder in der Produktion vor Ort.



Klöckner & Co SE

Klöckner & Co SE ist der größte produzentenunabhängige Stahl- und Metaldistributor und eines der führenden Stahl-Service-Center-Unternehmen im Gesamtmarkt Europa und Amerika.

Wir sind in mehr als 20 Ländern für unsere Kunden vor Ort, betreiben rund 290 Lager- und Anarbeitungsstandorte, beschäftigen etwa 11.000 Mitarbeiter und beliefern über 170.000 – hauptsächlich kleine und mittelständische – Unternehmen. Im Geschäftsjahr 2011 haben wir 6,7 Mio. Tonnen Stahl abgesetzt und damit einen Umsatz von rund 7,1 Mrd. Euro erzielt.

Unser wirtschaftlicher Erfolg basiert auf optimalen Prozessen und nachhaltiger Unternehmensführung; vor allem aber auf dem Know-how und Engagement unserer Mitarbeiter. Als Arbeitgeber bietet Klöckner & Co SE ein breites Spektrum an Einstiegsmöglichkeiten auf allen Hierarchiestufen.



Ruhrverband – Die Hüter des Wassers

Der Ruhrverband bewahrt das Gut Wasser für die Menschen in unserer Region. Mit acht Talsperren und 69 Kläranlagen sorgt er dafür, dass ausreichend Wasser in hoher Qualität zur Verfügung steht. Hierbei wendet er innovative und moderne Techniken an und entwickelt neue Ideen. Durch laufende Messungen der Wasserqualität in den Flüssen und Seen werden hohe Qualitätsstandards eingehalten.

Die Ruhr und ihre Nebenflüsse werden unabhängig von politischen Verwaltungseinheiten als Einheit betrachtet und bewirtschaftet. Dieses Flussgebietsmanagement schafft einen fairen Ausgleich zwischen den diversen Nutzungen und Interessen an den Flüssen und Seen. Das spart Kosten und dient, wie von der Europäischen Wasserrahmenrichtlinie gefordert, dem Umweltschutz und dem Allgemeinwohl. Darüber hinaus schaffen Freizeit- und Erholungsmöglichkeiten an unseren Flüssen, Wäldern und Seen mehr Lebensqualität.



SMS group

Die SMS group ist eine Gruppe von international tätigen Unternehmen des Anlagen- und Maschinenbaus für die Stahl- und NE-Metallindustrie, die sich in die Unternehmensbereiche SMS Siemag, SMS Meer und die Industriebeteiligungen gliedert. Rund 11.000 Mitarbeiterinnen und Mitarbeiter erwirtschaften weltweit einen Umsatz von über 3 Mrd. Euro. Alleineigentümer der SMS group ist die Siemag Weiss GmbH & Co. KG, die Holding der Unternehmerfamilie Weiss. Im Geschäftsjahr 2011 entfielen rund zwei Drittel des Gesamtumsatzes auf den Unternehmensbereich SMS Siemag, dessen Produktprogramm die Prozesskette von der Stahlwerks-, Stranggieß- und Walzwerkstechnik bis hin zu Veredelungslinien für Warm- und Kaltband einschließlich der Elektrik und Automatisierung sowie dem dazugehörigen Service abdeckt. Der Unternehmensbereich SMS Meer hingegen produziert Rohranlagen, Profilwalzwerke, hydraulische Pressen, Kupfer- und Aluminiumanlagen sowie Gesenkschmiedeanlagen, Ringwalzwerke und die passende Wärmetechnik. Die Exportquote beträgt 90 Prozent.



ThyssenKrupp

mit Leidenschaft und hoher Kompetenz an Produktlösungen für nachhaltigen Fortschritt. Ihre Qualifikation und ihr Engagement sind die Basis für unseren Erfolg. ThyssenKrupp erwirtschaftete im Geschäftsjahr 2010/2011 einen Umsatz von 49 Mrd. Euro.

Innovationen und technischer Fortschritt sind für uns Schlüsselfaktoren, um das globale Wachstum und den Einsatz begrenzter Ressourcen nachhaltig zu gestalten. Mit unserer Ingenieurkompetenz in den Anwendungsfeldern „Material“, „Mechanical“ und „Plant“ ermöglichen wir unseren Kunden, sich Vorteile im weltweiten Wettbewerb zu erarbeiten sowie innovative Produkte wirtschaftlich und ressourcenschonend herzustellen.



Vaillant Group

Die Vaillant Group ist ein internationales Familienunternehmen mit rund 140-jähriger Tradition. Im Kerngeschäft Heiztechnik ist sie mit ihren acht Marken das zweitgrößte Unternehmen in Europa. Daneben ist die Vaillant Group in den Bereichen Lüftungs- und Klimatechnik aktiv. An Standorten in Deutschland, Frankreich, Großbritannien, Spanien, Italien, der Slowakei, der Türkei und in China entwickelt und fertigt das Unternehmen effiziente und ressourcenschonende Produkte.

Ein Schwerpunkt der Vaillant Group liegt auf Produkten und Systemen, die regenerative Energien nutzen. Dazu zählen unter anderem Wärmepumpen, die Wärme aus dem Erdreich oder der Umgebungsluft nutzbar machen, und Hybridsysteme wie zum Beispiel solarthermische Anlagen.

Die Vaillant Group ist in mehr als 20 Ländern mit eigenen Vertriebsgesellschaften präsent und exportiert in über 60 weitere Staaten. Im Geschäftsjahr 2011 erzielte das Unternehmen, das sich seit seiner Gründung 1874 in Familienbesitz befindet, mit mehr als 12.000 Mitarbeitern einen Umsatz von rund 2,3 Mrd. Euro.

VAILLANT GROUP

Der Initiativkreis Ruhr

Der Initiativkreis Ruhr ist ein Zusammenschluss von 71 führenden Wirtschaftsunternehmen. Sie beschäftigen zusammen rund 2,25 Millionen Menschen weltweit und generieren einen globalen Umsatz von rund 630 Milliarden Euro. Ihre Führungskräfte repräsentieren als Persönliche Mitglieder den Initiativkreis Ruhr. Mit zukunftsfähigen Strategien und praxisnahen Konzepten setzt der Initiativkreis auf die kreative Kraft gebündelten ökonomischen Know-hows. Aus dieser Stärke erwachsen Zukunftsprojekte mit Strahlkraft. Immer mit dem Ziel vor Augen, die Metropole Ruhr als konzertierte Aktion verschiedener Akteure weiterzuentwickeln.

- A.T. Kearney
- Accenture
- Baker & McKenzie
- Bayer MaterialScience
- BDO
- BP Europa SE
- BVB 09
- Commerzbank
- Deloitte & Touche
- Deutsche Annington Immobilien
- Deutsche Bahn
- Deutsche Bank
- Deutsche Post
- Deutsche Telekom
- Duisburger Hafen
- E.ON
- Emschergenossenschaft und Lippeverband
- Ernst & Young
- Evonik Industries
- Fahrzeug-Werke LUEG
- Ferrostaal
- Flughafen Düsseldorf
- Gelsenwasser
- Grillo-Werke
- HANIEL
- Hellweg – Die Profi-Baumärkte
- HOCHTIEF
- ifm electronic gmbh
- Imperial Logistics International
- ista
- Klöckner & Co
- KÖTTER Services
- KPMG
- Kümmerlein
- MATERNA
- Information & Communications
- MC-Bauchemie
- Messe Essen
- NATIONAL-BANK
- NRW.BANK
- Pilkington
- Portigon
- PricewaterhouseCoopers
- RAG
- RAG-Stiftung
- REMONDIS/RHENUS LOGISTICS
- RHEIN-RUHR COLLIN
- RMM Metallhandel
- Roland Berger
- Ruhrverband
- Ruhr Nachrichten
- RWE
- Schalke 04
- Siemens
- Siempelkamp
- SIGNAL IDUNA
- SMS group
- START Zeitarbeit NRW
- The Boston Consulting Group
- Thyssengas
- ThyssenKrupp
- TRIMET ALUMINIUM
- Tönnies Holding
- TÜV Nord
- TÜV Rheinland
- Vaillant Group
- Veltins
- Verlagsgruppe Handelsblatt
- Vivawest Wohnen
- WAZ Mediengruppe
- Westfalenhallen Dortmund
- WGZ BANK

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