

Nathan Ellenberger

Professor Aleksander Kvasov

College Studies 499-5

24 April 2014

Human Capital Flight in the Globalized Market

SECTION I: Addressing the Policies and Effects of Human Capital Flight

The events and aftermath of World War II are perhaps the most pivotal points in shaping the world we know today. The economic burden initiated by years of conflict saw the gradual collapse of the British and French colonial empires in addition to the immediate fall of Germany's Third Reich. In the following decade, scores of skilled professionals from war-ravaged nations flocked to countries who remained relatively unscathed in search of more fruitful opportunities. This was the dawn of modern, human capital flight, which can be loosely referred to as the 'brain drain' phenomenon. Human capital flight is defined as an "international outflow of relatively highly educated individuals from developing to developed countries and is normally measured as a resource referred to as human capital" (Wytttenbach). According to the Migration Policy Institute, which attempts to determine the difference between skilled migrations abroad versus human capital flight, there must be two conditions for the term 'brain drain' to apply to a given country. The first of these is the "significant loss of the highly educated population" and the second is for "adverse economic conditions to follow" (Lowell). Human capital flight continues to have a profound effect globally, provoking both developed and

developing countries to introduce policies to correct the imbalance.

British and French colonization has deep roots in the causes of human capital flight with many arguing that it actually hindered the growth and modernization of those who were colonized. One example is given by Maria Misra in her work “Lessons of Empire: Britain and India,” where the British imposed the ideology of Social Darwinism on colonized India effectively stagnating their educational and economical capital. According to Misra, “British dominance over ‘lower’ races like the Indians proved their ‘superior’ physical, intellectual, and moral qualities. Stability, ease of control, and cheapness of government were prized above all else. Any policy that threatened stability, even the pursuit of ‘good governance’ or economic efficiency, would be jettisoned” (Misra). When World War II ended, English and French colonial holdings steadily gained independence, as these former imperial powers could no longer focus on maintaining active control in the midst of their depleting assets. However, because of the tactics used by Britain during the colonial period, India has been slow to embrace mass education, leading many to travel abroad in search of opportunity to obtain a higher skill set with very little desire to return.

While abundantly poor economic conditions within formerly colonized countries have been noted as a culprit for their development, there are also despotic, domestic policies to blame. During China’s Cultural Revolution (1966-1976) under the rule of Mao Zedong, it was thought that intellectuals posed a dire threat to communist society and that they must be flushed out to preserve order. Although these years did transform the country from agrarian to industrial based, they are seen by much of the world as a period of regression within China that possibly laid its foundation in global standing today as a super-industrialized nation at the expense of lagging

behind in education (Cong). Upon Mao's death in 1976, Deng Xiaoping who served as Vice Premier instituted policies that attempted to reverse the stigma attached to intellectualism by providing government-funded opportunities to prospective students to travel to a developed country for an advanced education and then return to China to make use of that knowledge, but with little or no incentive to return (Cong). These policies only further deepened the crisis within China as those who went abroad elected to remain where it was more prosperous.

The world has become a much smaller place now than it was at the conclusion of World War II and Mao's Cultural Revolution. Demands in skilled labor have shifted, international mobility has sky-rocketed, and technology has advanced to the point where it isn't enough to simply have economical appeal to remain in, or return to a developed or developing country. There are numerous other reasons for emigration, such as living standards, political stability or war, and personal rights; all of which factor into a contemplative decision. There simply isn't competition solely between the developed and developing because industrialized nations still have to compete with one another. For example, an industrialized country can be thriving, but if individual freedoms are limited, there is nothing to stop that individual, who possesses a professional skill-set that is in demand, from immigrating to a nation that is competing on an equal par. With the emergence of globalization, the trend has transformed from a purely negative phenomenon to one that is pushing countries to provide numerous incentives for emigrants to return to their home with the knowledge gathered abroad. It is apparent that all countries experience this trend at some point, whether all at once during a low point in the economy or gradually as opportunities are fostered elsewhere. In the globalized market, the challenges facing countries that are experiencing human capital flight fundamentally rests on the willingness to

engage on the international stage while cultivating opportunities for research, innovation, and entrepreneurship.

Deng Xiaoping's efforts to restore post-Mao China's intellectual abilities mostly failed due to the fact that once the students went abroad, the majority of them never returned (Cong). Today, China is still reeling from the residual effects of the Cultural Revolution. Studies show that, "between 1978 and 2007, more than 1.21 million Chinese went abroad for study and research, of whom only about a quarter have returned" (Cong). Furthermore, entire regions such as the Caribbean and former colonized territories in Africa have unwillingly become the exporters of human capital, further stagnating their own growth. A study conducted at Stanford University indicated that "between the years of 1972-1990, the number of highly skilled migrants ballooned from 300,000 to 2.5 million in the United States alone" (Rapoport). Stanford's study in conjunction with the International Labor Organization estimated that "the total cumulative loss of "brains" by region at 15 percent for Central America, 6 percent for Africa, 3 percent for South America, and 5 percent for Asia" (Rapoport). Another report done by the Pollution Research Group at Natal University in South Africa determined that in the last several decades, Africa had lost at least one-third of its skilled professionals with some accusing developed countries such as Germany and the United Kingdom of poaching (Rapoport).

In view of the publication of these reports and the spread of globalization, a new trend has begun to take shape, perhaps the antithesis of 'brain drain,' and it is referred to as 'brain-gain.' Several countries have had measurable success in drawing return migrants back within their borders such as Chinese Taipei, South Korea, and Ireland (Cervantes, and Guellec). These countries have increased the openness and accessibilities of their economies and have invested

heavily in research and development programs. Several other initiatives which usually can be seen on smaller scales within domestic industry, such as networking, have been applied to a larger context to connect professionals overseas. The Organization for Economic Cooperation and Development [OECD] has observed that, “grass roots initiatives in South Africa and Latin America have been developed to link researchers abroad to networks in their home countries. Indian professionals in the US have been the primary drivers of knowledge and capital flows to India”(Cervantes, and Guellec). In addition, research by the OECD has noted that among its thirty-four member countries, there has been a spike in skilled migration between them with temporary flows of students, researchers, managers, and technology specialists (Cervantes, and Guellec).

Both developed and developing countries have introduced targeted foreign policies to either capitalize or correct the imbalance of human capital flight that they face. A country such as Cuba has developed the practice of exporting its surplus of doctors to other nations in need of their services in exchange for goods, such as oil. For 90,000 barrels of oil a day, Cuba sends Venezuela the services of 30,000 health professionals (Arsenault). Venezuela is just one of many countries that face this medical shortage with others including China, Brazil, and even the United States. The Organization for Economic Cooperation and Development has coined these bilateral agreements as ‘brain circulation’ because rather than draining skills from a developing country, there is a continuous sharing of human capital resources (Cervantes, and Guellec). The United States embargo against Cuba renders this type of relationship impossible. If the U.S. were to lift the floodgates, then Cuban doctors, architects and other professionals would flee causing an immense ‘brain drain.’

Since the reasons surrounding the causes of human capital flight vary, there have been numerous attempts to develop a comprehensive approach in terms of mitigating the effects. On one end of the spectrum, there are some who call for international standards regarding recruitment abroad. On the other, are parties who push for the allowance of market forces to dictate how a country can unilaterally act. In the field of health, the United Kingdom has acknowledged the detrimental effects of targeted recruiting from developing countries, leading them to develop a set of “ethical, albeit non-binding, standards of conduct” (Ahmad). The World Health Organization has reviewed typical criteria, which usually includes commitments from developed actors to train more domestically in respective fields so that corporations cease to target individuals from developing nations. Also, to systematically limit recruitment from those experiencing ‘brain drain’ or pay compensation to those countries through a bilateral agreement (Ahmad). In contrast, countries such as Germany “are currently developing aggressive immigration policies targeted specifically at ‘the best minds’ among professionals from the developing countries. A manpower strategy that is based on indiscriminate poaching of skilled human resources”(Ahmad).

As mentioned earlier, there are countries who experience human capital flight in varying degrees and for various push-pull factors leading to a chasm in common ground for the multitudes of perspectives. The challenge continuously facing all countries has been established by the OECD where “an individual’s opportunity for success must be present for either retention or return migration” (Ahmad). Each sovereign country must be willing to invest in their own future by producing these opportunities through research, innovation, and entrepreneurship along with the desire to perform on the international stage.

SECTION II: Architecture and the “Brain Drain”

In comparison to other professions, there is a fundamental disconnect when applying the concept of human capital flight to the field of architecture. By its very nature, architecture is an international profession that is comprised of a set of ideas, or tectonics. The spread and sharing of new, innovative ideas has allowed the discipline to adapt to the globalized world while bettering the methodologies of both developed and developing countries by responding to cultural values with technological advances. It is for this reason that unlike many other professions, it is absolutely essential that human capital within the architecture community needs to continue to manifest itself on a global scale.

After the conclusion of World War II, the ‘brain drain’ of countless skilled professionals from around the globe, who began embarking to countries untouched by the devastation of war, in search of opportunity set the stage for the most pivotal point in modern architectural history. During this time Germany was at the forefront of architectural innovation, but the effects of the War launched the spread of these ideas on a global level. The epicenter of architecture in Germany was the Bauhaus. A handful of the most famous and influential architects worked and practiced here, such as Walter Gropius, Mies van der Rohe, and Marcel Breuer. “Founded in 1919 in the city of Weimar by German architect Walter Gropius, its core objective was a radical concept: to reimagine the material world to reflect the unity of all the arts.” (Griffith Winton). The ideals of this school flourished until the Nazis came to power in the early 1930’s. They had their own taste for art, architecture, and ethics that were not reflected in the core values of the Bauhaus.

The Nazis were not known for accommodating the visions of others, especially when

these ideas clashed with their own, so the Bauhaus became a top target to eradicate the freethinking society. On April 11 1933, Ludwig Mies van der Rohe “turned up for work as normal...The Bauhaus, the 20th century's greatest school of art, architecture and design, was closed. The building was cordoned off by armed police and surrounded by crowds” (Dyckhoff). The school remained closed despite the objection and protest of Mies van der Rohe. When it was on the verge of bankruptcy and given permission to reopen by the Gestapo, the school’s leaders were told that the primary condition to be abided by was that the curriculum adhere to the demands of the new State (Dyckhoff). Faced with this ultimatum, all of the leaders of the Bauhaus emigrated to the United States and changed the status quo of architecture when their values collided with America’s. A new Bauhaus was “established in Chicago in 1937 by another immigrant, László Moholy-Nagy, while Breuer, van der Rohe, and Gropius spent several years teaching a new generation of American architects at schools such as Harvard and Yale” (Griffith Winton). These immigrant architects brought their vernacular to the United States and became the primary influence towards a new architecture.

Decades after the end of World War II, the prospect of traditional ‘brain drain’ still exists within the architecture community. Generally, we think about how different architecture would be in Europe if the Bauhaus had remained operational, but seldom does Egypt come to mind. Hassan Fathy was known as Egypt’s ‘people architect’ and he had a skill set that many other countries would’ve benefited from greatly. He elected to remain in Egypt to “re-introduce the mud-brick vernacular rather than Western building styles in order to teach the poor how to build homes with limited resources” (Nader). Rather than becoming a notable international architect, he became renowned for his efforts to improve life for his fellow Egyptians. Although Hassan

remained and practiced in Egypt he was eventually recognized internationally for his inspiration to his architectural counterparts in other developing countries and he received the Aga Khan Award for Architecture, the highest honor for architecture in the Middle East, and the Chairman's Award for Lifetime Achievement (Nader). The range of measuring an architect's ambition and success makes it even more difficult to apply a universal concept of human capital flight to this field.

Further east, the economic boom in China has entered it into a new phase of using architecture to retain and encourage corporate investment and human capital. Since the end of China's Cultural Revolution in 1976, it has strived to be a major player on the international stage. An article by the *Chicago Tribune* entitled "Designed in Chicago, Made in China" details how China's leaders "view cities as engines of economic growth and Western architects as the latest luxury brand" (Kamin). Growth has been done at such a rapid pace and in solely choosing highly reputable Western architects, the idea of 'big brand architecture' has emerged. The article also points out that "It takes time and vision to build great cities. But the strategies China has pursued mix the megalomania of Soviet-style public squares, the gigantism of American skyscrapers, and a one-dimensional Chinese focus on boosting the economy rather than the quality of life" (Kamin). There are many downsides to the fast-paced growth of Chinese cities ranging from insufficient infrastructure to environmental pollution, but for the purposes of this paper, it is important to ask why China isn't looking to their own architects to guide this development. Chinese architect Wang Shu won the coveted Pritzker Prize in 2012, yet China still finds itself seeking the talent of overseas professionals. It would be thought that an architect who was born and raised in China would have the appropriate vision to design with the best interests of their

country in mind. This disconnect can be attributed to the Cultural Revolution under Mao Zedong, where China's architects were forced out of the country, or killed, and with it, their creativity (Kamin). The country may be the world's fastest growing economy, but they have done little to stop their own 'brain drain' and increase 'brain gain.' Instead they are loosely applying 'brain circulation,' but none of that intellect is of Chinese origin or beneficial to Chinese architects.

During the history of the Soviet Union, the profession encountered, a purge, a mandate, and eventually, a collapsing State. In 1948, there was a "drastic purge of the USSR Academy of Architecture because of the allegedly pro-Western, pro-American and general cosmopolitan outlook of its leading-members. (Blake)" This can be seen as a parallel to what the Nazis did to architects several years before to promote their ideals of the built environment. Even before the purge, the ruling party ordered architects to adhere to a mandated style, which changed several times from Classical to Soviet-Victory Style to Stalinist & Constructivist and finally to Modern (Blake). This led many once prominent architects to flee the country due to being ostracized such as Karo Halabyan and Wassily Kandinsky. When the Soviet Union collapsed in late 1991, the architectural limitations were gone too. Even though the economy met a downturn, many architects, who had left the Soviet Union returned to practice in their home countries with a newly found freedom. Some of these former Soviet states, such as the Russian Federation, were able to counter a 'brain gain' and recapture much of the architecture human capital flight that was experienced in the previous century. This can be attributed to Russia's nationalistic appeal to origins & legacy coupled with its openness to international inspirations (Sokolina).

Perhaps the largest problem facing the field today is the lack of diversity, which creates a limited scope of opportunity. The statistics of this factor demonstrate that it doesn't mean

anything if a country is developed or developing, and ranges from gender, race, and physical ability to sexual orientation. *Architect Magazine* states that “despite widespread intellectual support for the idea of diversity, studies show that minority groups are still grossly underrepresented in the field. “Only about 3 percent of executives in major American corporations, including architecture firms, are women, and only about 2 percent of registered architects are black” (O’Connell). The reasons for this can be silent obstacles such as stereotypes, stigmas, studio culture, and teaching methods. This article also discusses that “these factors or a combination of them can make anyone who is different feel disconnected or disillusioned” (O’Connell).

Women already face an array of obstacles in the Middle East and Asia, but Iraqi-British architect Zaha Hadid brings the UK and other European nations to the forefront. In an interview with *Business Insider* she says, “I have noticed it is easier for me in European countries than it is here. There is a different dynamic. In the UK it is more difficult. They are very conservative. There is a skepticism and more misogynist behavior here” (Thorpe). Many in the field, especially in universities where these studies are done, believe things are steadily improving, but that there is still much work to be done for full-equality. If there are discriminatory practices or social stigmas regarding the pursuit of a career in architecture than those promising individuals will have no choice but to join the labor force of a more accommodating nation. Furthermore, the profession itself will suffer a ‘brain drain’ from the lack of a diverse array of contemporary perspectives.

Architecture can be many things to the international community, an individual country, and even a singular individual. In some societies it can be associated with the current economic

conditions or extend to exemplify a nationalist identity. It can also reflect the values of cultures and the international scope of an architecture firm. It is a highly skilled profession that has both a distinct set of ethics and inequalities. Human capital flight ties into this field in a manner that is more directly related to its opportunity to flourish. Every aspiring architect should realize that the proliferation of ideas has been the basis of advancing the profession, ranging from when the Greek orders formed the basis of proportionality and were adopted by the Romans in their own style, to Le Corbusier's introduction of the Five Points Toward a New Architecture, which were a breakout set of principles regarding modern architecture that spread on a global magnitude. Innovations and technological advancements can only benefit the profession through worldwide collaboration, but in order for them to be successful we must analyze our obligations of responsibly sharing our wealth of knowledge freely in the architecture community.

SECTION III: Estonia's Approach to Human Capital Flight

Estonia's niche within the modern world has been wrought with a series of turbulent events. From the age of the Russian Empire to years of Soviet occupation and the Nazi invasion, the trajectory of this Baltic state has been altered from both a developmental and skilled labor perspective, especially with respect to architecture. Even though its architectural identity and capacity were not immune to the external powers and internal conflicts faced during those times, the architecture of Estonia has been shown to be highly adaptable to pressing circumstances. While it has attempted to maintain a distinct vernacular architecture, Estonia has absorbed the influence of Western, Soviet, and countless others who have conquered the land over time. Despite its malleability, Estonia has endured the loss of many skilled professionals, including architects, to the competition brought on by neighboring or distant countries that are able to offer a refuge from adverse economic conditions, political persecution, or censorship. In recent years, this 'brain drain' or human capital flight has been the subject of numerous studies and planning strategies, aimed at a 'brain gain' or return of human capital. The most notable of these are presented in "Sustainable Estonia 21", which was drafted by the Estonian Parliament and the European Bank's "2013 Transition Report: Estonia". These new policies and models have been shown to target architects, in addition to other professionals, who have acquired an adept skill-set while abroad. Estonia's ability to repatriate skilled architects through these new implementations has been paramount to the growth of the profession, while at the same time, revealing measurable manifestations of progress.

The 'brain drain' has been visibly present in many sectors of the country, but in reference to architecture, the early 20th century was defining. During this time, two specific architects of

note were among those who left the country for reasons ranging from economic to political. The first was an already established architect, Anton Hanson, who was born in 1879 and left the country en route to America in 1906 (Stein & Becker). The second architect of note was Louis Kahn. Among the most famous architects of the 20th century, Kahn was only five years old when his Jewish parents fled tsarist Russia in 1905, as a result of the Russo-Japanese War (Vitra). Ultimately, it was the United States that benefited greatly from his career's work, but at that point the scope of impact this child was going to have on the world of architecture was unknown to all. Moreover, it is impractical to deny that the face of the profession would be drastically different around the world had Kahn's family remained, and his career established in Estonia. In conjunction with this era, America was beginning to heavily industrialize after Reconstruction brought about by the end of the Civil War. As a nation beginning to flex its power, the surge in immigration and human capital flight was beginning to be felt all over the world. The following decades would prove to be crucial to the development and retention of architecture as a profession within Estonia.

Professional architecture within Estonia is drastically younger than the accumulation of the various ideas that have been absorbed by society over time. According to Piret Lindpere of Estonia's Culture Point Society, the profession "emerged as late as the beginning of the 20th century, together with the rise in national self-awareness when the first Estonian architectural firms appeared and started looking for their own 'Estonian style' (Lindpere). This is not to say that there was no activity among architects before the 20th century, but it merely represents that there was no prominent style to which a majority of professionals adhered to in their work. Around the same time that a cohesive approach was gaining its footing in Estonia, Modernism

was beginning to grip the Western world. The theory of “Form Follows Function,” which is the basis of Modernism, began to permeate into the architectural vernacular of Estonian society. This concept that exemplified architecture as a globalized profession is known as Functionalism. Lindpere suggests that the foundation of Functionalism is what allowed Estonian architecture to survive the turbulent events and changes of the last century induced by the occupation of both the Soviet Union and Nazi Germany (Lindpere). Furthermore, these earlier encounters with internationalist concepts have assisted in influencing today’s policies that have been set forth by the Estonian government, which highlight the need for the “continuation and deepening of globalization processes” (Riigikogu).

Globalization has also been shown to correlate with the degree to which a country embraces democracy and a liberal market. According to the European Bank’s report, Estonia’s willingness to engage with the world market has allowed it to increase average income and access to higher education more so than other countries in eastern Europe that have faced uneven gains (Berglof). However, with increased access to education and a boost in mobility, the prospect of human capital flight still remains a cause for concern due to the value presented to competing countries. The architecture profession has still encountered challenges to its development, but the Estonian government’s initiative has brought great reforms since the end of Communism.

Communism and the Nazi occupation were perhaps the greatest tests to Estonia’s still-young architecture profession. The challenges faced were political repression, heavy restrictions, and self-censorship. The Soviet Union’s presence in Estonia began in 1940 until its dissolution in 1991. During the Stalinist era, anything that represented Western ideas and internationalism was deemed ‘bourgeoisie’ propaganda and purged from society in order to promote a pseudo-

nationalist style (Iwaskiw). This attempted to undermine Estonia's nationalist image & expression of architecture and the arts, leading to a low point in the once optimistic future for the country. Repression coupled with strict building regulations, limited material, and a low-quality workforce caused roughly around 10% of the population, including many architects, to flee to neighboring and Western countries (Lindpere). Self-censorship, which is equally as detrimental as human capital flight, also began to be a collateral effect of the political climate. Self-censorship leads to stagnation of the progress that occurs naturally in the collaborative profession that is architecture. It is due to this, that when Estonia began restructuring, it was compelled to acknowledge the residual effects of this time period and recognize that it still remains a developing society. The Parliament's "Sustainable Estonia 21" states that "in order for there to be sustainable success, there is a central precondition for the country to establish itself, rapidly and effectively, as a functioning state and efficient/coherent society" (Riigikogu). As of right now, it is still considered by the European Bank to be a transitional country, but nevertheless Estonia has proved to be a viable contender in the globalized market while retaining its skilled labor.

After the death of Joseph Stalin and continuing into the 1960's, the Soviet government began to ease restrictions on architecture and the arts. Shortly thereafter, Modernism returned to Estonia in full-force and Western ideals began to fuel anti-Soviet sentiment. To the architects remaining in the country, "this meant a transition from Soviet euphoria to quiet opposition – socialism easily took over all that was negative in international experience" (Lindpere). These recently realized freedoms picked up where the legacy of Functionalism was halted by the Soviet incursion and allowed the profession to re-evaluate this period of political 'thaw' with new ethical, conceptual, romantic, and nationalistic ambitions (Granquist). I believe that this is the

pivotal point for Estonia's assimilation towards the West rather than strengthening its relationship with the Soviet Union. This eventually would climax with the dissolution of the USSR and continue to the present, where Estonia originally oriented itself during the rise of Functionalism. These events ultimately led Estonia to assert itself through new policies as part of the Western political and economic space while mostly gravitating towards the European Union and NATO (Riigikogu). In addition, by maintaining a dialogue among numerous entities within the country, the opportunity to successfully compete in the international market while retaining and repatriating skilled professionals has become tangible. Estonia's architecture sector has benefited greatly from the government's efforts by way of "strengthening the commercial application of research, through enhancing cooperation among relevant institutions, most notably between universities, technical schools and private sector entities" (Berglof).

Presently the Estonian government's attempts to formulate methods of restoring and strengthening its human capital within the architecture profession have proven fruitful. The country still wrestles with the economic downturn of the last decade, especially with the slow of the building sector, but based on the analysis by the European Bank, the industry has been steadily improving while accompanying an increased focus on the design of infrastructure (Berglof). The capital of Tallinn has been the epicenter of this growth and a proven example attesting to the bright future of Estonia's new architects. The Estonian Center of Architecture has recognized the effectiveness of retaining human capital by acknowledging that the "unique phenomenon compared with the European context is the fact that many design commissions have gone to the youngest generation of architects" (Ruudi). By providing ample opportunities for architects to practice, the possibility of 'brain drain' shifts to 'brain gain' and the growth of the

profession within Estonia.

The current President of Estonia, Toomas Hendrik Ilves recently participated in an interview regarding the ‘brain drain’ that the country faces now and in the future. He stresses the Government’s ambition to determine how to lure both those who have traveled further away and those who are statistically forecasted to emigrate, back to Estonia in order to use their gained knowledge from abroad to promote domestic growth (Tonnessen). In addition to this, he gives special weight to the consideration of social dialogue in the form of policies. It is Ilves strong belief that “...cooperation between the public, private, and third sectors has always advanced society and it is impossible to overestimate the value of a strong civil society” (Tonnessen). The prospect of ‘brain drain’ is not entirely seen as a liability by Ilves, but in fact it provides an opportunity for increased ‘brain gain’ with multitudes of different perspectives returning to enrich Estonia. Sound policies and strategic execution are the key to allowing not only Estonia’s architecture profession to prosper, but all sectors of society.

Since Estonia’s independence from the USSR, the architecture profession has faced a boom in building & rebuilding (Lindpere). The basis of this did not start here though, but in fact it began when the very first ideas of Internationalism and Modernism/Functionalism found their way into the formation of Estonia’s architectural identity. This in turn, foreshadowed the globalization and innovation that Estonia would experience in the succeeding century. The benchmark of this growth is Tallinn, which offers the contrast of a contemporary city, which can be seen emerging from the juxtaposition of styles that make up the old city. Estonia is in the unique position to build off of a bountiful history coupled with a newly developing, nationalistic vernacular that offers a promising future for professional architects within the country’s borders.

The opportunity for development & 'brain gain' is evident, but success will continue to rely on sound policies that are propelling Estonia into the 21st century.

Works Cited

- Ahmad, Omar. World Health Organization. Brain drain: the flight of human capital. 2004. Web. 18 Feb. 2014.
- Arsenault, Chris. "Cuban doctors prescribe hope in Venezuela." AlJazeera. N.p., 12 Dec 2012. Web. 12 Apr 2014.
- Berglof, Erik. "Country Assessments: Estonia." Transition Report 2013. European Bank for Reconstruction and Development, 1 Jan. 2013. Web. 23 Apr. 2014. <>.
- Blake, Peter. "The Soviet Architecture Purge." Architectural Record. Americans for Intellectual Freedom, n.d. Web. 12 Apr 2014.
- Cervantes, Mario, and Dominique Guellec. Organization for Economic Cooperation and Development. brain drain: Old myths, new realities. France: , Web.
- Cong, Cao. "China's Brain Drain at the High End." Asian Population Studies. 4.3 (2008): n. page. Web. 18 Feb. 2014.
- Dyckhoff, Tom. "*Mies and the Nazis*" Culture, Art & Design, Architecture. The Guardian, 29 Nov 2002. Web. 23 Mar 2014.
- Granquist, Mark. "Estonian Americans." Countries & their Cultures. N.p., n.d. Web. 15 Apr. 2014. <>.
- Griffith Winton, Alexandra. "*The Bauhaus, 1919-1933*." Heilbrunn Timeline of Art History. The Metropolitan Museum of Art. Web. 23 Mar 2014.
- Iwaskiw, Walter. "Estonian - A Country Study." Library of Congress, 1 Jan. 1995. Web. 15 Apr.

2014. <>.
- Kamin, Blair. "The Global City." *Designed in Chicago, Made in China*. Chicago Tribune, 21 Feb 2014. Web. 23 Mar 2014.
- Lindpere, Piret. "Estonian Architecture." CulturePoint Estonia. Estonia Cultural Society, n.d. Web. 15 Apr. 2014. <>.
- Lowell, B. Lindsay. Migration Policy Institute. Skilled Migration Abroad or Human Capital Flight?. Washington D.C.: , 2003. Web.
- Misra, Maria. "Lessons of Empire: Britain and India." SAIS Review. 23.2 (2003): n. page. Web. 18 Feb. 2014.
- Nader, Ralph. "*Why US Brain Drain Harms Developing Countries*." Opinion. AlJazeera, 19 Jan 2014. Web. 23 Mar 2014.
- O'Connell, Kim. "*Keeping architecture relevant is about keeping it real*." Reverse Brain Drain. Architect Magazine, 02 Feb 2012. Web. 23 Mar 2014.
- Rapoport, Hillel. Stanford Institute For Economic Policy Research. Stanford University. Who is afraid of the brain drain? Human capital flight and growth in developing countries. Stanford, CA: , 2002. Web.
- Riigikogu. "Sustainable Estonia 21." Estonian National Strategy on Sustainable Development. Estonian Parliament (Riigikogu), 14 Sept. 2005. Web. 23 Apr. 2014. <>.
- Ruudi, Ingrid. "A Guide to Contemporary Architecture in Tallinn." Estonian Center of Architecture. Eesti Arhitektuurikeskus, 1 Jan. 2012. Web. 23 Apr. 2014. <>.
- Sokolina, Anna. "Architecture and the State: Moscow Urban Concepts After Socialism." Architectural Record. Scholarworks, n.d. Web. 12 Apr 2014.

Stein, Alan, and Paula Becker. "Alaska-Yukon-Pacific Exposition." Pacific Northwest. The Seattle Times , 17 May 2009. Web. 15 Apr. 2014. <>.

Thorpe, Vanessa. "ZAHA HADID: 'I'm Sure That As A Woman I Can Build A Very Good Skyscraper'." *Life*. The Guardian, 20 Feb 2013. Web. 23 Mar 2014.

Tonnessen, Toomas. "Reversing the Brain Drain." Baltic States CityPaper. : , . Print.

Vitra. "Louis Kahn. The Power of Architecture." Vitra.. Vitra Design Museum, 6 Apr. 2013. Web. 15 Apr. 2014. <>.

Wytttenbach, Caroline. Human Capital and Brain Drain in the Regional Development: A Case Study of Incentives. Lund University, 2010. Print.