

STHAPATYAKAM

The Architecture of Cambodia



ស្ថាបត្យកម្មកម្ពុជា



The "Stha Patyakam" magazine team in front of Vann Molyvann's French Library on the RUPP Campus

STHAPATYAKAM
The Architecture of Cambodia

ស្ថាបត្យកម្មកម្ពុជា

Department of Media and Communication
Royal University of Phnom Penh
Russian Boulevard, Phnom Penh
Tel: (+855)23 88 44 08
Fax: (+855)23 88 44 08
Email: admin@dmc-cci.edu.kh
Website: www.dmc-cci.edu.kh



Supervisor Dr. Tilman Baumgärtel
Design Supervisor Christine Schmutzler
Editorial Assistant Jenny Nickisch
Writers and Editors An Danhsipo, Bo Sakalkitya, Chey Phearom, Chhuon Sophorn, Cheng Bunlong, Dareth Rosaline, Heng Guechly, Heang Sreychea, Kun Chenda, Kim Kotara, Koeut Chantrea, Kong Sovan, Leng Len, Lim Meng Y, Muong Vandy, Mer Chanpolydet, Sreng Phearun, Rithy Lomor Pich, Rann Samnang, Samreth Meta, Soy Dolla, Sour Piset, Song Kimsour, Sam Chanmaliny, Ung Mengyeang, Ven Sakol, Vorn Sokhan, Vann Chanvetey, Yar Ror Sartt, Yoeun Phary, Nou Uddom.
Illustrator Lim Keav (Cover)
Headphotographer Rithy Lomor Pich
Photographers Heng Guechly, Dareth Rosaline
Designers Muong Vandy, Samreth Meta, Leng Len, Rithy Lomor Pich, Yoeun Phary, Kun Chenda, Sour Piset, Rann Samnang
Google Map Designers Jenny Nickisch, Heang Sreychea, Nou Uddom, Koeut Chantrea

Thanks to Yam Sokly, Heritage Mission, who has shared general knowledge about architecture in Cambodia, Oun Phalline, Director of National Museum, Sok Sophal, Deputy Dean of the Faculty of Architecture, for an exclusive interview, Chheang Sidath, architect at Ly Chhuong Import & Export Company, Nhem Sonimol, architect student, who contributed the architecture books, Chhit Vongseyvisoth, architect student, A Plus who contributed the Independence Monument picture, Stefanie Irmer, director of Khmer Architecture Tours, Denis Schrey from Konrad-Adenauer-Stiftung Phnom Penh for financial support of the printing, to the Ministry of Tourism that has contributed the picture of Phnom Da, and to Oum Pom, Secretary General of Royal Academy of Cambodia, the source on RUPP Campus 2.

Printed by Punloeu Sovann Printing House
Supported by Konrad Adenauer Stiftung (KAS) and Deutscher Akademischer Austausch Dienst (DAAD)



Table of Content

Building Cambodia

Editorial

4

“It is safe and quiet here”

The One Hundred Houses project of Vann Molyvann was designed as a solution for low-cost housing in Cambodia



6

From Church to Slum

The former church of the Mission des Sœurs de Providence Hospice is home to over 20 families today



8

Lost in modern Phnom Penh

Colonial architecture in the capital has been replaced by new buildings as the country is in favour of economic investment



9

“I just want the company to honor the contract”

The evicted residents of Borei Keila lead a miserable life at the relocation sites



10

Air, Light and Water

Veteran architect Mam Sophana talks about his work



12

The Career of a Woman Architect

Rong Ratana reconciles her life with her job



13

What do you think about contemporary Cambodian Architecture?

Let's hear the points of view of Khmer architecture students

14

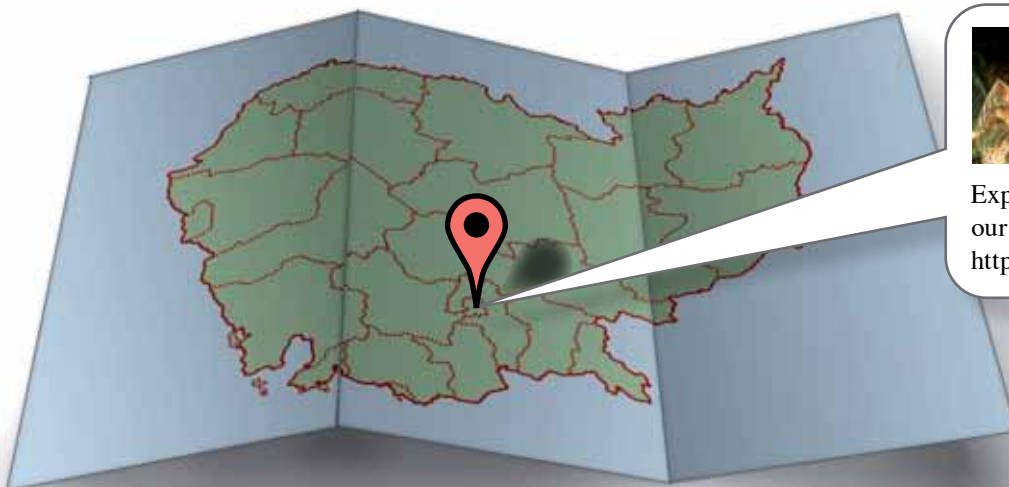
Phnom Penh Architecture Guide

15

Phnom Penh Map

32

Check STHAPATYAKAM on the Net!



Explore Phnom Penh online with our internet guide at <http://goo.gl/maps/q85U>

BUILDING CAMBODIA

Cambodia's national landmark is, first and foremost, a magnificent piece of architecture. The ancient temples of Angkor Wat were a towering achievement in terms of construction methods and building techniques. Millions of tourists come to the largest religious monument in the world every year to marvel at the intricate architecture, the elaborate carvings and the very fact that the Khmer civilization was able to build this kind of structure without cranes, bulldozers, trucks and other present-day construction tools. (In the absence of these modern building technologies, *corvée* labor was used to erect these temples.)

However, Khmer architecture is not just Prasats, Gopuras, Nagas and bas-reliefs of dancing Apsaras and the armies of monkey king Hanuman. The temple complexes around Angkor Wat, in Ko Ker, Preah Vihear and Sambor Prei Kuk from the period of the Khmer Empire (802 – 1431) represent only one important period in the history of architecture in Cambodia.

This magazine, created by students from the Department of Media and Communication (DMC) at the Royal University of Phnom Penh (RUPP), is a compendium on the architecture of Cambodia. It is the third publication of its kind after a magazine on Cambodian cinema (*Kon–The Cinema of Cambodia*, now out of print) in 2010 and Cambodian pop

music (*Dontrey–The Music of Cambodia*, still available) in 2011.

We are covering all kinds of architectural styles found in the Kingdom: from the traditional stilted huts and floating houses that can still be found in the provinces and even in Phnom Penh to the most recent high-rises in the capital, such as the Vattanac building that at the time of writing is still unfinished.

After the fall of Angkor and the decline of the Khmer civilization, the knowledge how to construct stone buildings might have been lost. However, in the capitals to which the Royal court moved after the fall of Angkor– to Lovek and to Uddong, among others – a new type of wood architecture developed. While none of the wooden temples and palaces built between 1432 and 1863, the so-called “Dark Ages of Cambodia”, survived until today, they served as an important inspiration for newer buildings like the Royal Palace, the National Museum in Phnom Penh or the National Assembly.

After Cambodia became a French Protectorate in 1863, the new colonial masters imposed their architectural ideas on the country. Not everybody in Cambodia considers the colonial buildings that began to rise in Phnom Penh and in the provinces at the end of the 19th century as genuine “Khmer Architecture”. There is no denying however, that these buildings successfully applied the

latest achievements in European architecture to the most pressing concern of all architecture in Cambodia: how to build houses that provide shelter both from the sweltering heat in a tropical country and from the torrential rains during the rainy season.

After the Second World War and the reluctant withdrawal of the French from Cambodia, its new leader and former king, Preah Norodom Sihanouk, tried to transform the country into a developed, industrialized First World country. During the period of Sihanouk’s Sangkum Reas Niyum (“People’s Socialist Community”), Cambodia was the site of one of the most extraordinary experiments in post-war architecture. Inspired by the European modernism of Le Corbusier, Khmer architect Vann Molyvann and a number of his colleagues developed an architectural style that was modern, yet based on traditional Khmer building styles. While the international world of architecture has discovered the oeuvre of these architects only recently, many of the key works from this period have either been destroyed (like Vann Molyvann’s National Theatre and his Council of Ministers) or systematically neglected (like the Olympic Stadium and the “White Building”).

The best constructions of the New Khmer Architecture from the 1950s and 1960s are examples of an ecological, “green” architecture *avant la lettre*. The architects developed



new construction techniques to keep their buildings cool in the often blazing heat of Cambodia.

This fascinating period ended abruptly, when Sihanouk – who had elevated the modernist works of Molyvann and colleagues to a kind of state architecture – was deposed during a coup d'état in 1970. The “Khmer Republic” under former general Lon Nol that followed was short-lived and derailed by an escalating civil war. It has not left behind any significant architecture. When the Khmer Rouge took over power in Cambodia in 1975, they blew up the National Bank and completely demolished the French catholic cathedral on Phnom Penh’s Monivong Boulevard and a luxury hotel opposite of Angkor War. In line with their political ideas that made the life style of Cambodian farmers the ideological norm, they did not put up any noteworthy buildings. One could argue that their main contribution to the architecture of Cambodia was destruction rather than construction.

After the Vietnamese army ended the bloody reign of terror of the Khmer Rouge the country was so desperately poor that for the next two decades very few new buildings were constructed. The Vietnamese, however, did leave the Cambodians with one major new building that was based on the ideas of the New Khmer Architecture of the 1960s: an ideological training center south of Russian

Boulevard that today is part of the Royal University of Phnom Penh.

Only around 2000, building activities in Cambodia started to pick up again in a major way, after a certain degree of stability and development was achieved in the country. In the last decade, the once gloomy and desolate capital of Phnom Penh has come back to life again, with new buildings and construction sites mushrooming in almost every street. When Canadia Bank completed the first high rise office building in Phnom Penh in 2010, it filled many residents with pride.

At the same time, the lower classes of Phnom Penh have to pay the price of the recent building boom in the city. Land grabbing by companies that belong either to members of the ruling Cambodian People’s Party or to politically well-connected business men have become the order of the day. The ensuing brutal evictions of residents of slums in desirable city locations has made ten thousands of people in Phnom Penh homeless or forced them to endure a pitiful existence in “relocation sites” that are typically far away from the city and lack the most basic infrastructure, such as running water, electricity, schools, markets or hospitals. The cruel evictions in Dey Krahorm, Borei Keila and around Boeung Kak Lake – to make way for luxury apartments and shopping malls – are only the most ruthless examples of recent displacements in Phnom Penh. At the

same time, the vast majority of Cambodians in the provinces continue to live in huts and houses that are not too different from the dwellings of their forefathers centuries ago.

In the production of this magazine, we had to limit our research to Phnom Penh and its surroundings for practical reasons. As the temples from the Angkor period are well-covered in other publications, we decided to focus on more recent architecture.

The major publication on colonial architecture and the New Khmer Architecture – such as Michel Igout’s “Phnom Penh Then and Now” and “Building Cambodia: New Khmer Architecture 1953-1970” by Helen Grant Ross and Darryl Leon Collins – are currently out of print. We hope that our guide will help residents of and visitors to Phnom Penh to discover some of the lesser-known architectural marbles that – together with famous buildings like Wat Phnom or the Royal Palace – once made the city “the jewel of the Far East”. At the same time, we’d like to remind our readers that this magazine is no professional architecture guide, but a mere student project. While we tried to keep all information as accurate as possible, this magazine should not be taken for an academic, error-free publication.

An internet version of the architecture guide with some of the most important buildings can be found at <http://goo.gl/maps/q85U>

Tilman Baumgärtel



One Hundred Houses neighborhood in 2012

“It is safe and quiet here”

The One Hundred Houses project of Vann Molyvann was designed as a solution for low-cost housing in Cambodia

After the Khmer Rouge regime some houses in Cambodia were totally destroyed or in dire need of renovation. Others were lucky enough to survive the war, like the One Hundred Houses, which are located in Toek Thla commune, Sen Sok district in Phnom Penh.

The One Hundred Houses (Borey Mouyrouy Knong) were designed in 1965 by famous Khmer architect Vann Molyvann. They were built for the staff of the National Bank, and are now used as private residences. According to an interview in the book *Cultures of Independence* by Ly Daravuth and Ingrid Muan, he was inspired by ancient Khmer houses and updated their style. For example, he made the shuttered windows bigger than in the ancient house, so that the air can get in and out easily. In addition, the houses were built on concrete columns that were not as easily destroyed by water as wooden columns. These houses are on a 6.5 hectare piece of land between the railway and Pochentong airport and were

meant as an exemplary solution for low cost housing.

Every house is divided into two main parts. One part is called the wet area and includes kitchen, toilet and terrace. The main rooms are the living room and the bedroom. The houses have a floor space of 75 square meters. The floor of the terrace and the bathroom are in concrete, and the main room is in wood. People will find the roof of the house strange at first, since it is different from those of the traditional Cambodian houses. The roof looks like a military cap which allows the air go in and out freely. The traditional house does not have such a directly cooled roof. As another improvement on the tradition, Vann Molyvann has added running water and an in-house toilet. Likewise, he has made the ventilation more efficient, and he also used more durable materials for the building.

With the passing of time, the appearance of the houses changed. Many people have passed through these houses and made changes

to them. Mar Savoeurn, 63, a retired post man, who has been living in one of the One Hundred Houses since right after the Pol Pot regime, says: “I bought the house for only 1 Chi (a Cambodian standard measure for gold, approximately 3.75 grams, 190 dollar worth today) from the owner, and it looked so good at that time. It was very cheap, since the person selling the house was not the original owner.” He continued: “After the Khmer Rouge regime people did not care about money or who was the owner of the land. They had to make sure that their families had something to eat and a place to live.”

Mar wanted to find a job, so that he could support his family. His former house in Kampong Cham province was badly damaged during the Pol Pot regime. “My only option was to come to Phnom Penh with my sister and to live with her,” he points out. He made very few changes to his house. He tore down the wall between the kitchen and the bathroom to gain an additional room, and moved the kitchen in the space under the house. Otherwise the house remains unchanged. “I did not do any construction, since I did not have enough money, so everything is almost the same,” he says. He is determined not to leave his house, because of the government’s current policies. “I have observed that recently many people are ordered to leave their house and move to places far away from the city, so the One Hundred Houses are the best place for me,” he stresses.

Ben Sophorn, 35, has been living in the One Hundred Houses since 1980. She remembers that when her family arrived at the first time, the terrace was not in good condition, but the rest of the building was fine. Since then, her family made some modifications to the house. She says: “I build walls around the empty space under the house and around the terrace because I needed more space for my family.” To make it look good, she painted the house pink. She also added a small house for herself at the backside of the house.

About the house she says: “I feel cool both day and night, and I do not have to use fans or air-conditioners.” Talking about the ownership of this house, she explains: “I own the house as my family paid the original owner of the house.” Nevertheless, she only got an official land title in March 2012 after having asked for it for four years. After 32 years in this residence, she still considers it as a suitable house for her: “It is safe and quiet here, and you can work and take care of your children and your family,” she says. However, it is not the right place for those who want to run a shop. But people can run a small business – for instance as a tailor selling clothes to market vendors, as she has been doing.

Nevertheless, many residents had problems during the rainy reason. Oum Chan Tevy, 22, has been living in One Hundred Houses since 2008. She says, she enjoys living there, because it is

safe and orderly. She rarely hears about robberies or burglaries in the village. However, her family will leave soon, because her house is not comfortable anymore. She explains: “If we would have kept the building in its original state, it would be great to live here.” She says that during the rainy season every house has to have a pump to drain the garden. Alternatively, they have to put sand sacks around their plot of land.



Resident at One Hundred Houses since 1979

Ben Sophorn confirms that the village often gets flooded during rainy season which often leaves her stranded at her house. Tan Navin, the commune chief of Toek Thla, claims that “we want to construct a big pump to help people to get the water out, so that the problem will be solved.”

The One Hundred Houses are almost 50 years old, and as with an aging person, their health is deteriorating. They are affected by both human and natural factors. Some houses have been turned into villas, while at others there are only a few changes. Some are empty. Commune Chief Tan Navin estimates that “90 percent of the buildings have survived, while 10 percent have been abandoned”.

Kim Kotara, Leng Len

39 *The One Hundred Houses are north of Russian Boulevard. On the way from downtown to the airport turn right into the street next to the Toyota dealer. See map on the back cover.*

From Church to Slum

The former church of the Mission des Sœurs de Providence Hospice is home to over 20 families today

Located in the Chin Dom Deak block opposite the Phnom Penh Port, the Providence Hospice has been systematically altered by the people who have turned the church into their home. It has been divided into small rooms for different families who came to settle there after the Khmer Rouge dictatorship in 1979.

Built in the 1930s by an unknown architect – probably a French priest – the Mission des Sœurs de Providence Hospice had an orphanage, a hospice, a cemetery and a school, called Ecole de Providence. North of the church was a cemetery, where Bun Rany Hun Sen Wat Phnom High School is located today. A three-floor building with the sleeping quarters of the orphans and the sisters was next to the church, but it has since been demolished. “If we look at the map, we will see that the church is shaped like a T or a cross with the main entrance on its west side,” says Yam Sokly, an architect at the Heritage Center at the Ministry of Culture and Fine Art.

On top of the main entrance is a stone cross, the symbol of Christianity. Below the cross are a rose and three windows, two of which have been closed with masonry. The whole church has been designed in Gothic Revival style. The windows and doors are shaped like lancets with a pointed arch on its top. It helps to support the upper part of the building. Above the main entrance was a room for the organ. The walls of the church are made out of brick kept together with lime mortar that can absorb the water from the bricks. As a result, the building can stand the weather and last long. The wall is also supported by buttresses, an architectural structure built against the wall which serves to support the building. Buttresses are commonly used in huge building, for example, the Cathedral of Reims. On top of the building is the roof that is covered with tiles.

Entering through the main entrance, we can see a beautiful tiled floor that leads towards the altar in the transept, where the priest held service for the Christian followers. On both sides of the aisles, there were seats standing on floor tiles with a pattern that is different from that of the tiles in the aisles and is adorned



Mission des Sœurs de Providence Hospice

with flowers. The church has a neo-Gothic rib-vault ceiling. In the walls are big windows, above which are rose-shaped openings that let light and air in.

Sokly says: “If we compare this chapel to the other two that are left in Phnom Penh, this is the most beautiful one because of the unity of its design.” (One of the other two surviving churches is in Russei Keo District, Russie Keo Commune near the Japanese Friendship Bridge in Chruoy Changvar. The other one is a chapel on National Road Five two kilometers out of Phnom Penh.)

Twenty families live in the church, according to Srey Mom, 38, one of the residents who came to live here in 1980. She says she has grown accustomed to live in the church, even though it is very crowded: “It is not easy to live here, because people have to go through my house in order to get upstairs.”

Apart from the chapel, there are the remnants of a Chinese temple built in 1910s and a pagoda built in 1883 in the neighborhood. However, there has been no conflict among those religions, reports Heng Seoun, 40, who has been living in the church since 1979.

Chin Dom Deak Block has been a Chinese neighborhood even before the 20th century. Most of the Chinese residents worked as blacksmiths, and the name of the block actually translates to “Chinese Blacksmith”. After the end of the Khmer Rouge regime in 1979, people moved into the church and into the nearby Chinese Temple. The squatter homes block the view of the church and the temple. The only visible part of the temple is its old gate that is supported by big round wooden pillars.

According to the book “Khmer New Architecture 1953-1970” by Helen Grant Ross and Darryl Leon Collins, there were 73 churches in Cambodia before the Khmer Rouge period. In Phnom Penh alone, there used to be five churches and the Phnom Penh cathedral, which was destroyed by the Khmer Rouge, says Sokly.

Kun Chenda, Chey Phearon

40 *The church is between Street 74 and Street 80 opposite of the Phnom Penh port. See map on the back cover.*

Lost in modern Phnom Penh

Colonial architecture in the capital has been replaced by new buildings as the country is in favour of economic investment

Cambodia was part of the French colony of Indochina for almost a century and has many buildings from the colonial period left, especially in Phnom Penh, the capital city.

Compared to other cities in the region, Phnom Penh has only recently started to develop economically again. It remains to be seen how many of the colonial buildings will be preserved as a new type of national tangible heritage. Right now, Phnom Penh willingly welcomes modern architecture with its sky-high buildings that are made of expensive imported materials such as glass and steel. “Thirty percent of colonial building in what we call ‘French District’ has been demolished from 1996 to 2009,” said Sokly Yam, an architect from the Heritage Mission. (The French District is the area around Wat Phnom with buildings such as the Post Office, the National Library, the Train Station and many private residences from the colonial period.)

In the late 19th century, many administrative, public and private buildings were built by the French in Phnom Penh, and the city became known as the ‘Paris of the East’. Sokly says: “Some Cambodians still discriminate and claim that it is not necessary to preserve buildings that were constructed by the French during the colonial period. It is not a ‘Khmer’ achievement to them.”

One example of a demolished building in Phnom Penh is the Tourist Office that was housed in a French Villa at the junction of Sothearos Boulevard and Sisowath Quay. More recently, the 19th century Ministry of Industry, Mines and Energy has been torn down despite of concerns raised by Unesco.

While a disdain for French colonialism might be one reason for the neglect of buildings from that period, another reason is connected to the development of the country. “It has to do with political decisions and with the civil society that decides to do it. Many countries, such as Germany for instance, have destroyed some great architecture for economic reasons. Now the same is happening in Cambodia,” says Stefanie Irmer, director of Khmer Architecture Tours and co-founder of Space for Architecture and Manolis House.

Cambodia has been through civil war for almost three decades, and the interest of preserving old building is relatively low among Cambodians, who are more interested in the economic development of their country. “The colonial buildings are just peanuts; they are

not as important as the land itself. It would be very exceptional if we could find an investor who considers both the land and the building as equally important,” Stefanie Irmer continues. “It costs lots of money to preserve an old building, and Cambodia needs to have a future vision in doing that.” She also agrees that the city has a high potential for architectural tourism, since tourists do not want to see what they already have seen in their own country like high-rises and shopping malls.

Preservation might be costly, but another way is renovation. But is it acceptable to use new material when trying to keep a building as historical heritage? Stefanie explains that to find the same materials that have been used historically can be expensive. According to her using new material but sticking to the original style and shapes still keep the building as architectural heritage.

Not everybody agrees on what the real meaning of ‘heritage preservation’ is. Sokly says: “Preserving colonial buildings is a long term investment. We need to create a concept of renovation that is suitable to the context of Cambodian architecture.” He suggests: “Cambodia, too, needs to create her own renovation concept. And if there is no immediate action taken, it will be too late to preserve what we call the national architectural heritage.”

Vann Chanvetey, Lim Meng Y

44 *The old Ministry of Industry, Mines and Energy was on the corner of Norodom Boulevard and Street 108. See map on the back cover.*



Demolished Ministry of Industry, Mines and Energy

“I just want the company to honor the contract”

The evicted residents of Borei Keila lead a miserable life at the relocation sites

More than 2,000 families have been living in 7 Makara district’s Borei Keila community in the 1980s and 1990s. The majority of these families had moved into the empty buildings of the former sports complex after the end of the Khmer Rouge dictatorship. Some received land titles, while others rented their houses. In early 2003, the government granted permission to Phanimex Construction Company to develop the land for economic purposes. Suy Sophan, owner of the company, promised to build ten apartment buildings for the people there, but the company so far has built only eight buildings. The eviction of the remaining residents of Borei Keila has led to violent clashes with the police.

Borei Keila means Athletes’ Village in Khmer. Originally, there were eight dormitories on this site, five of which were destroyed. The buildings were a gift of the Chinese government and were built on an area of 19,000 square meters for a sum of 70 million riel. They were built to accommodate 1,000 athletes, when Cambodia was the host of the Asian Games of the New Emerging Forces (GANEF0) that were held at the National Sports Complex in 1966.

The idea to share the land between a private investor and the residents was developed in 2003. The Cambodian Government gave the land to Suy Sophan, president of Phanimex Construction Company. In 2004, Phanimex agreed to construct 10 buildings on two hectares of land for Borei Keila villagers in exchange for obtaining ownership of the remaining 2.6 hectares for commercial development rights. But the company has built only eight buildings so far, and then claimed it ran out of money.

In April 2010, Phanimex Company unilaterally broke the agreement despite its contractual obligations. The 300 families that were still living on the original site were excluded from the agreement. But they are still living in housing on the site. On January, 2012, there was a serious violent clash between Borei Keila residents and the Phnom Penh police that tried to evict the remaining residents. While the people started to throw rocks and bottles of fish sauce at the police, company workers, security guards and the police fired tear gas at the protesters. Company representative ordered

excavators and bulldozers to demolish all remaining buildings on the next day. The authorities and the company forced the residents of Borei Keila to move to relocation sites in Toul Sambor in Dang Kao district’s Prey Veng commune and at Phnom Bath in Ponhea Leu in Kandal, both approximately 30 kilometers from Phnom Penh.

After this brutal eviction, 117 of the forcibly evicted families from Borei Keila moved back to their old neighborhood and constructed new dwellings out of old tents and mats around Borei Keila. Most families live near stinking water and piles of rubbish surrounded by flies. There are no toilets for them, and there is a lack of clean water. “Children are getting ill due to this environment,” says Kim Sakmoni. She used to live in one of the buildings at Borei Keila. But now she has made her home on the staircase of one of the new buildings that Phanimex has built for the former



The slum of Borei Keila today

residents of Borei Keila. She plans to stay in the area to demand compensation for the apartment she lost.

A group of villagers are presently protesting and still seeking intervention not only from authorities but also from human right groups to help and solve their issues. Sor Sorn, 56, one of Borei Keila residents, said that she lost house and her job as a vegetable seller on the day of the eviction. The villagers have tried to file a petition with City Hall and other organizations. However, there has not yet been any solution from the authorities.



Borei Keila in the 1960s

Sou Khorn, 46, a representative of the Phnom Bath villagers, said that 39 of the evicted 140 families have gotten 56.4 square meters of land with a land title, and four poles, ten pieces of zinc, and 25 kilo of rice from the company. Other families are living in tents and are waiting for a plot of land at the relocation site. Not only children but also old people starve, and have no clean water and electricity. Many of the villagers, especially the children, have contracted malaria and often get stomach illnesses because they have to drink unclean water. Since it is impossible to survive under these circumstances, some of the villagers have decided to go back Phnom Penh and look for jobs.

In Toul Sambor, the other relocation site, the situation is as bad. Some of the Borei Keila residents with land titles have been provided 13.5 square meters houses at this site. However, other families have not yet received anything from Phanimex. Heang Theary, a 46-year-old women with six children, who had been living in Borei Keila since 1998, said that her life is much harder now. She needs to spend 3,000 riel for electricity every day. When there is no electricity, there is also no water. The weather at the site is hot and stuffy. Hospital and school are far from the relocation site.

“I as well as all the other villagers do not want any special treatment. We just want the company to honor its contract and construct two more buildings in Phnom Penh for the residents of Borei Keila,” Sor Sorn says.

Rann Samnang, Ung Mengyea

41 *Borei Keila is between Okhna Tep Phan (Street 183), Street 211 and Boulevard Tchechoslovaquie. See map on the back cover.*



Koh Pich

New Real Estate Projects in Phnom Penh

Camko City

Located in the Pong Peay Lake Development Zone in Sangkat Toul Sangkea, Khan Russey Keo, Camko City is a new urban development undertaken by World City Co., Ltd. from South Korea. The 119 hectares area cost two billion dollar. The project was started in 2005 and was at that time expected to be finished in 2018. There were to be six phases in this project. World City signed a construction contract with Korean company Hanil Engineering & Construction Co., Ltd. for the first phase in 2006. The first phase was finished in 2009 and cost 109 million dollar. It encompasses an area of almost 100,000 square meters, and includes villas, town houses, mid-rise and high-rise condominium and a street mall with shops. In February 2012, Lee Sang-ho, CEO of World City, was sentenced to five years in jail in Seoul for fraudulently obtaining loans from Busan Savings Bank. After that, the construction in Camko City stopped.

Koh Pich

Koh Pich's first phase is expected to be finished in 2016. It is a project of Canadia Bank and the Overseas Cambodia Investment Corporation (OCIC) on Koh Pich (Diamond Island). Wedding halls, shopping malls, the Gold Club, and a theater have been finished already. Furthermore, Elite Town, a gated community, and Koh Pich City Hall are nearly complete.

Bassacc Garden City

Near Koh Pich island, another new development is making fast progress: Bassacc Garden City. This project is also financed by Canadia Bank and OCIC: Rose Garden Condominiums, which have cost 70 million dollar are a part of this project. These four apartment towers stand on 1.5 hectares, and were begun in 2008. They were completed in mid-2011. Bassacc Garden City also includes a residential area which is in progress. Most of the buildings are in international rather than in Khmer style. The residential area has guards at the entrance and is open only for the residents and their guests.

An Danhsipo

See back cover for the location of these new development projects.

Air, Light and Water

Veteran architect Mam Sophana talks about his work

Architecture is an artistic achievement, integrating the ideas of the architect, the engineer, the client, and the contractor,” is what Mam Sophana always keeps in his mind. The architect needs to think about air, light, water, and try to design buildings which make life comfortable and healthy, he says. Among his most famous buildings is the “Round House” on Norodom Boulevard from 1971, presently a dental clinic.

Born in 1936, he went to Preah Bat Ang Eng Primary School in Phnom Penh and continued his studies at Sisowath High School. He got a Scholarship Award from the American Institute of International Education in 1958. He went to study architecture at Miami University in Ohio for five years, and then worked as an assistant at Fish Rinehart Firm in Cincinnati.

In 1965, he returned home and became a lecturer at the Royal University of Fine Arts. He opened his own private firm in Phnom Penh. In 1967, Prince Norodom Sihanouk awarded him a Gold Medal for the design and the construction of the National School of Electricity, today known as the National Technical Training Center (NTTI) in Phnom Penh.

A year before the Khmer Rouge took over power, he and his family left Cambodia to live in Singapore. During that time, he



“Round House” by Mam Sophana



Mam Sophana

worked for the Government of Singapore as a senior architect in the Department of Public Works. The most important thing in his career was his involvement in the design and supervision of Terminal 1 of Changi International Airport. Back in Cambodia in 1993, he became an advisor to Prime Minister Hun Sen and was put in charge of construction and town planning. Since 1998, he has been a Undersecretary of State of Ministry of Land Management, Urban Planning and Construction.

Mam said that the architect is just an advisor to the building owner, and he is prepared to listen carefully to the owner’s requirements. The architect has to assist the contractor on how to use materials in construction standard and elaborate details regarding art.

He points out the people’s misunderstanding of the word “architect”. They think that an architect is just an engineer or a draftsman and has less value for the society, because they see that buildings are now constructed by workers according to the wishes of the house owner. People say that today architects ask for a lot of money, produce drawings very slowly and seldom follow the owner’s requests. People say that workers do the job fast, and they get paid cheaply.

But very soon the owner finds cracks here and there, the roof leaks, pipes burst, and the toilet is chocked. These problems make the owners unhappy. They have to recall the workers to fix things, and it takes more time and money. After facing these difficulties, they may think of looking for a professional and competent architect. “If we hire a responsible architect, it would be better than leave the design to the construction company,” he says.

Architects have studied not only theory, but also technique. After their graduation, they receive a license and are registered at the Cambodian Institute of Architects. In this case, the owner has the right to file a complaint to the competent authority, if the architect has committed mistakes.

Rann Samnang

41 Mam Sophana’s “Round House” is on 171 Norodom Boulevard. See map on the back cover.

The Career of a Woman Architect

Rong Ratana reconciles her life with her job

You are lucky if you meet Rong Ratana in her office opposite of the Council of Ministers, as she is normally on the construction site. She does not wear a smart dress like other girls do, but is dressed in T-shirt and jeans. Sitting with a serious face in her office, the young lady seems to have a lot of things to deal with. She is one of the most successful women architect in Phnom Penh. Right now she is working on the new Ministry of Labor on Russian Boulevard. Fortunately, she made some time for our interview, even though it is interrupted by a few phone calls to her.

Rong Ratana was born in 1981 and studied architecture at the Royal University of Fine Art (RUFA) and management at the National Institute of Management (NIM). Unlike others who choose their own major, in the case of Rong Ratana it was the family that decided that she should study architecture. She got a scholarship to study engineering. As her parents wanted her to have a specific skill in life and didn't want her to study engineer, they encouraged her to take architecture as a major instead.

Architecture was not her favorite major at that time, but she found it interesting later. It was not easy for her to study a major that she did not like, but she overcame that with her commitment. She says: "I have my own personal commitment. Whatever I study or do, I pay full attention on it." During her studies, she went on exchange programs to Vietnam and Germany. After she graduated, it was tough for her to decide whether she wanted to work in architecture or in management. "If we are an architect, we need to be honest to our architecture." This is what her professor told her. The sentence means to her that if she studies architecture, she should work in the field of architecture. Hence, she decided to be an architect.

She found a part time job related to architecture, and she worked for the architecture firm Sorak AEC. She also did some projects on her own. The first time that she met a client, she felt happy and valuable. Later, she focused more on urbanization as she found out that it is important for Cambodia that is still in the aftermath of the Khmer Rouge. She also worked with the German Gesellschaft für international Zusammenarbeit (GIZ) on land management after graduating from RUFA in 2005. Then she decided to work on her own projects as it can improve her skill more.

"It is not wrong to work for a company, but if we work for others, we just fulfill their dream. I think I want to improve my skill and fulfill my dream. Therefore, I work on my own projects," she says.



Rong Ratana

She opened her own company R.R. Sam Co., Ltd in 2007, which specializes in design and construction.

It is not easy for a woman to work on a man's job. "I also want to have a normal life like other women. I do not want to work in a job that mostly men do," she says. "However, it is the condition of my life, and I have to accept it." Besides designing the project, she needs to go to the construction side to check the progress, to work with the engineers, and to deal with the customers. Instead of wearing a nice dress, she has to wear heavy clothes. Instead of staying in the office, she needs to stand under the hot sun to control the building process, and she works in the field more than in the office. She is proud and has reputation through her work.

Rong Ratana greatest achievements so far is her Ministry of Labor, the biggest project of her company. She also works on a new mosque project in Beng Kok, that is based on a design from Iraq. She has designed some of houses of ministers, villas, hotels such as Castle Hotel near Phsar Kandal in Phnom Penh, Hotel Cozyna Angkor in Siem Reap and Preah Vihear Pich in Preah Vihear province.

Now, she does research on green architecture as she believes there will be a demand for it in the future in Cambodia. She wants to work on projects that are fitting for the tropical climate of Cambodia. She believes that green architecture will help Cambodians to save energy and money.

Sam Chanmaliny

43 *Rong Ratana's Ministry of Labor is on Russian Boulevard. See map on the back cover.*

What do you think about contemporary Cambodian Architecture?

Let's hear the points of view of Khmer architecture students



Seng Thearith, 22, Limkokwing University of Creative Technology

“Nowadays, architecture is very different if we compare it with the architecture from 1950 to 1970. Present architecture is designed with simple ideas. The architect focuses only on style and function, but they don't care about lighting and air movement. We call it passive design. Vann Molyvann made use of natural light and natural air. And people all over the world know our country because of Angkor Wat. Architecture can show our



culture and identity.”

Chhit Vongseyvisoth, 20, Norton University
“I think every kind of architecture has its

own value, depending on the development of society. In the past, all buildings were built according to the available materials and space. However, today buildings are designed and built vertical since the land is limited. It is a good idea to design and build in that way, but one disadvantage of the recent architecture is that most of them are built with a lot of mirrored glass, and the architects do not care much about ventilation. Thus, recent buildings need a lot of air conditioners, which is bad for the environment. I support the idea of high rises, but they should be built to take advantage of air movement rather than



using air-conditioners.”

Yaung Vatanakmony, 21, Cambodian Mekong University

“The idea of architecture in the past is very wonderful, because the architect designed each building and temple with consideration of air and light. The architecture in the past was designed with its own meaning. Most of the architecture of today is designed and built with a lot of mirrors. These buildings

could not use the natural energy sources such as light or air. When we start to design, we should think of the environmental effect and design a project with an ecological concept.”



Sun Pora, 24, Royal University of Fine Arts

“Today, there are new buildings everywhere and our traditional houses are getting lost. The architects hardly think about Khmer culture. They do not understand what the value of culture and heritage is. If we look back to the times of Vann Molyvann, his buildings were modern, but he still kept national identity alive. He left space under the buildings with columns keeping them far from the ground. Today, national significance is ignored in favor of profit, and buildings do not have any identity. If we are Khmer, why don't we use Khmer style? Foreigners visit Cambodia because they want to see the distinctive culture of Cambodia. But if they just see what they have already seen in their own countries, it will lessen the value of our architecture.”

Chhuon Sophorn, Mer Chanpolydet

PHNOM PENH ARCHITECTURE GUIDE →

- Traditional Style
- Angkor Period (802-1432)
- Colonial Period (1863-1953)
- Songkum Reastr Niyum (1953-1970)
- Contemporary (since 1979)



Chinese House

1 CHINESE HOUSE

The Chinese House belongs to the family of Tan Bunpa, a Chinese merchant of Hokkien descent. Tan Bunpa bought the land on Sisowath Quay on the banks of the Tonle Sap River and built the house in 1904. As this was during the French colonial period, the house was designed in a combination of Chinese and French style.

The Chinese House was built following the concept of “Feng Shui”, a term that means “wind and water”. As the building is located at the river banks, the air from the Tonle Sap can blow into the building and cool it. The whole building is built out of concrete – that has been painted in light yellow and white – with a traditional Chinese roof with clay tiles. The door and window frames are painted in a dark green.

The Chinese House has two floors. Traditionally, builders pounded dirt and soil to

create the floor of a house or laid a foundation with bricks, but this building is different because the floor is tiled with French tiles from the colonial period. The roofs, doors, and pillars are all in traditional Chinese style. The upper floor is made out of hard wood, and Chinese lanterns are hanging from the roof.

Chinese House was owned by Tan Bunpa’s family until 1975. The house was abandoned during the Khmer Rouge period. In the 1980s, some families from the neighborhood managed it. From the 1990s to 2007, the owner was Darryl Collins, an Australian art historian. Then the great-grand-daughter of Tan Bunpa bought the house in November 2008 and owns the house now.

The Chinese House is still in a good location, and it still serves as a business house. Originally, Tan Bunpa used the house to sell food and to supply foodstuffs to the ‘Prison du Protectorat’, the colonial prison, and other

departments of the French administration. Nowadays the great-grand-daughter of Tan Bunpa rents the house to business people, says current manager Antonio Lopez De Haro. Today, the Chinese House is a restaurant that attracts both local customers and tourists.

Sam Chanmaliny

2 KANTHA BOPHA HOSPITAL

Kantha Bopha has two locations, one in Phnom Penh, Dun Penh district, Sras Chok commune, and another one in Siem Reap Province. The hospital opened in 1974, but during the Khmer Rouge regime it was closed. Kantha Bopha was rebuilt in 1991 and reopened in 1992 by Swiss pediatrician Beat Richner.

There are five buildings in the hospital that are connected to each other. The land was provided by the government of the Cambodia as a donation to build the hospital. The hospital is funded by the Zürich Children’s hospital in Switzerland and donation from Switzerland. There are 2,400 people working in the hospital, who treat a half million of children free of charge each year.

The hospital’s walls are out of open bricks



Kantha Bopha Hospital

that let air into the building and keeps the temperature low in the building. In the hospital there are not many air-conditioners and fans in and outside of the patient's rooms thanks to the open brick walls. This helps to preserve energy.

Soy Dolla

3 COUNCIL FOR THE DEVELOPMENT OF CAMBODIA

The Council for the Development of Cambodia (CDC) was constructed between 1935 and 1945 by an architect called Chau Chon. Before the French started the construction, Wat Langka was located in the area. That's why there is still a stupa (Chedei) behind the building today.

The Protectorate government used the building as an office for the Résident Supérieur du Cambodge, who was in charge of administering the country. King Norodom Sihanouk had given the lot to the French government as a land concession. "CDC is considered



Council for the Development of Cambodia

an Art Déco building in Cambodia due to the date of construction as well as due to its style and the construction materials," says Yam Sokly, an architect at the Heritage Mission at the Ministry of Culture and Fine Arts. After the UNTAC left Cambodia, the Council for the Development of Cambodia has started to use the building, either in 1993 or in 1994. The CDC has added a small part of the building which is located on the left hand side, and it is now being used by the CDC director. "That place is the lucky place for director," a CDC security guard says. Today the CDC is working as a business coordinator for foreign investors in Cambodia.

Kim Kotara



National Library

4 NATIONAL LIBRARY

The National Library is situated on a lot west of Wat Phnom. It was built in 1924 by the colonial government of Indochina during the regime of King Sisowath. While it was designed by a French engineer, it is decorated with Cambodian design elements. On the right-hand side of the building stands a statue of Vishnu, in Cambodia a symbol of knowledge and intelligence. The decoration on the wall on the left side is inspired by ancient temples in Cambodia, as it is kept in the Khmer "Kbach Phkar Phanhi" style.

On the wall next to the door, are bas-reliefs similar to those on ancient temple walls. The main reading room has a high ceiling with fans that allow for good ventilation. Apart from the book shelves, there are two main doors on the left, and on the right-hand side, there are two doors similar to the main entrance. On top of those doors there are bas-reliefs that describe the story of the people in the Angkor-period in Cambodia. Librarian Orn Leoung, 52, says that the reliefs on the wall are similar to those in Angkor Wat temple which depict the life style in the Angkor period.

During the Pol Pot regime, the building was used as a warehouse, and the floor was damaged. The floor has been replaced since, while the rest of the interior is original. The library was re-opened in 1980 and is managed by the Ministry of Culture. Today, it has 103,635 books in various languages.

Kong Sovan

5 NATIONAL ARCHIVE OF CAMBODIA

The National Archive is behind the National Library. It is painted in a light yellow color. The building looks different from the National Library as its walls have many windows. This allows for the air to flow through the building and keeps the interior cool. This is important for the preservation of the documents. The building has three floors. The shelves on the first and second floor have holes beneath them. These holes allow for ample circulation of the air in the building. Librarian Mam Chheang says that the building was opened in 1926 by the French colonial government. It was closed



National Archive

during the Pol Pot regime and reopened in 1979. In 1995, the building was renovated with the help of international contributors such as the French Cultural Centre, the embassies of Australia, Switzerland and France, the Japan Foundation and the Toyota Foundation. Unlike the National Library, that integrated traditional Cambodian elements in its design, the National Archive is much more French in character.

Kong Sovan

6 RAFFLES HOTEL LE ROYAL



Raffles Hotel Le Royal

Raffles Hotel Le Royal is a rare example of a historic, yet timelessly sophisticated building in Phnom Penh. It was built in 1929 during the French colonial period by French architect Ernest Hébrard. It is designed in French style and luxuriously decorated with Cambodian and French furnishings. The building is typical of the French colonial style, but the roof is in traditional Khmer style. The Royal underwent a number of name changes: At its inception in 1929 it was named “Le Royal”. From 1970 to 1975, it was known as Le Phnom. In 1979, the hotel reopened after the Pol Pot regime as “Hotel Samakki”. This name was used until Norodom Sihanouk was reinstalled as king in 1993, when the hotel changed its name back to “Hotel Le Royal”.

Yoeun Phary

7 WAT PHNOM

Wat Phnom, the tallest religious structure in Phnom Penh, is the heart of the capital. Local legend has it that in 1373 a wealthy widow named Daun Penh (Lady Penh) found four bronze Buddha statues inside a floating Koki tree on the Mekong River. With the help of the residents she erected a shrine on top of the hill to keep the Buddha statues. In 1434, King Ponhea Yat settled in the area and started to build a city

which he gave the name Phnom Penh. Wat Phnom became a sacred site and sanctuary where people would make wishes and pray.

There are many structures in the Wat Phnom area. Wat Phnom stands 27 meters from the ground, tourists can go up to the hill by several paths and stairways. The main stairway is on the east side, which is guarded by stone lions and stone naga balustrades. Wat Phnom pagoda is the tallest religious structure on the top of the hill and open every day from 6 am to 6 pm. The pagoda’s length is 22.3 meters, its width is 11.6 meters and its height is 10.7 meters. The wall is covered by pictures that depict the previous lives of Buddha. This sanctuary has been rebuilt several times by the Ministry of Culture and Fine Arts with planning by the Phnom Penh Municipality.

Kong Bolin, the director of the Department

of Antiquities at the Ministry of Culture and Fine Arts, says: “Wat Phnom is an important and historical place in Phnom Penh, so the Ministry of Culture and Fine Arts rebuilt some part of the pagoda and cleaned the old pictures on the wall to make it more beautiful, but our vision is to keep the same structure and style.”

Next to the sanctuary is the biggest stupa, built approximately between 1462 and 1467. It contains the ashes of King Ponhea Yat. The height of the stupa is 42.25 meters; each side is 26.66 meters. The stupa has been repainted in March 2012. There are 30 other small stupa around Wat Phnom. On the southwest corner of the pagoda and biggest stupa is a small shrine dedicated to Lady Penh.

The distance from the capital city to the provinces in Cambodia is measured from the



Wat Phnom in the year of the dragon 2012



Psar Thmey, Central Market

signpost that was officially inaugurated in July 2011 by the Phnom Penh Municipality north of Wat Phnom. On the flank of Wat Phnom hills at its northern edge, there is the Wat Phnom Museum of Art. The museum opens every day from 7 am to 6 pm for local and international tourists who want to see sculptures and handicrafts from art works to silk. There are also pictures from Khmer history.

The north stair of Wat Phnom takes the visitor to a Chinese Daoist shrine. On the west side of the hill, an interesting, big working clock adds to the beauty of Wat Phnom. Right behind the clock, there is a bronze statue of King Sisowath. At the left of His Majesty, there are three ladies dressed in traditional costume, holding objects that symbolize three provinces of Cambodia—Siem Reap, Banteay Meanchey and Battambang. These three provinces were under Thai control since 1794. On March 23, 1907, during the reign of King Sisowath, Thailand returned these three provinces to Cambodia following an agreement with the French colonial government. On the south side of the hill, tourists can sit under the trees to relax and enjoy the view around Wat Phnom.

Heang Sreychea

8 POST OFFICE

The Post Office is a building from the French colonial period. It is located east of Wat Phnom. It was built in 1895 by French architect Daniel Fabre. This building is at the heart of the old Quartier Européen or French quarter. Behind the Post Office is the Ministry of Post and Telecommunication, which has an entrance next to the Post Office. There are a number of other buildings

from the French Colonial period around the square in front of the Post Office. They include the former police headquarters in the North (built between 1925 and 1935), the former Bank of Indochina in the South (built in early 1900 and today Vann’s Restaurant) and the former Hotel Manolis opposite the Post Office, today a squat. The Post Office



Post Office

still serves its original purpose and was re-opened after renovations in April 2004.

The building used to have a central squat tower surmounted by a cupola roof, but this was removed in the late 1930s. The building mixes French influences with Asian style, especially in regard to how the air gets in and out easy. Besides the ventilation, they also want to make the building look more comfortable and attractive. During the renovation, the original windows have been replaced. The old windows easily let the air

in and out, but the new windows with tinted glass block the ventilation and the light. Hence, in some parts of the building, they started to use air conditioning.

Ung Mengyeaen

9 HEMAKCHEAT CINEMA

Along Street 130 were some of the biggest and best-known cinemas in Phnom Penh during the 1960s, the “Golden Age of Cambodian Cinema”. One of those well-known cinemas, the Hemakcheat, was one of the most outstanding cinemas during that period. The cinema was built in the 1960s and has a box-shaped front. Film director Ly Bun Yim, the former owner of the cinema, recalls: “Bun Sun, the former owner, had planned to have a restaurant on the ground floor and the cinema on top of that, but his



Hemakcheat Cinema

plan did not work out.” Presently, the people living in the building use the restaurant space as a parking lot. “Below the cinema logo, there was a huge space for film posters of the films that we were showing,” Ly Bun Yim adds. Today, this place is a slum with hundreds of inhabitants who have taken informal residence there.

Ven Sakol

10 PHSAR THMEY (CENTRAL MARKET)

Phsar Thmey, also known as Central Market, is a big and well-known building from the French colonial period in Phnom Penh. It is a popular tourist attraction because of its magnificent dome, one of the largest domes in the country.

Phsar Thmey simply means New Market in Khmer. The full name of this market is Phsar Thom Thmey. The work on the market began in 1935, and it was completed in 1937. The architect of the market was Jean Desbois, and the engineers were Wladimir Kandarouoff and Louis Chauchon.

Before the construction of Phsar Thmey, there was a lake called Boeng Decho in this location. In 1434, when King Ponhea Yat first moved the capital of Cambodia to Phnom Penh, he dug up the lake using the earth to erect the hill at Wat Phnom. This lake was used to receive runoff water in the rainy season. During the French colonial period, the lake was drained to build the New Market.

Lim Try, an architect at the Department of Urbanization and Construction, says: “Phsar Thmey is not just a nicely designed building, but its plan is also economical. The vendors do not need to spend much on the electric bill for lighting, fans or air conditioners.” He explains that “even though Phsar Thmey has no air-conditioning as contemporary supermarkets, people still can get fresh air from the many small windows in the dome of the building.”

Phsar Thmey features an Art Deco style, with a big dome in the middle and four wings extending. The dome of Phsar Thmey is 30 meters wide and 26 meters high. The length of each wing is 44 meters and their height is 12 meters. Being built in 1935, Phsar Thmey was renovated successfully in 2011 by repainting and adding some more vendor booths that were built in concrete around the four wings.

Cheng Bunlon

11 CINÉ LUX

Originally constructed in 1938, the Cine Lux is the only old cinema that has survived in Phnom Penh. Built in a splendid modern Art Deco style, Lux was one of the most famous cinemas in Phnom Penh. It is attributed to French architect Roger Colne. Located along Norodom Boulevard, Cine Lux



Cine Lux

was used until the early 1990s for a variety of activities including film screenings and theater performances. It has a total of 650 seats. It re-opened in 2001 after renovations. The Lux is truly unique and different from other cinemas and is even equipped to occasionally show 35 mm movies. All the other cinemas in Phnom Penh that thrived in the 1960s – such as the Hemakcheat Cinema, the Bokor or the Kirirom – have been turned into apartments, restaurants or KTVs.

Chenda Kun

12 THE ROYAL PALACE

The Royal Palace is considered the symbol of the Cambodian nation. When the capital was moved from Oudong to Phnom Penh, the Royal Palace was established in 1866 during the reign of King Norodom. It is located at the confluence of the Tonle Sap, the Mekong and the Tonle Bassac along today’s Sothearos Boulevard. Inside the walls that are 402 meters wide and 435 meters long, the place is filled with buildings which are decorated and built predominately in the style of pagodas.

According to senior architect Lim Try

all the building inside the palace complex are adorned and built in the traditional Khmer style. “Almost all of the buildings have a Bos Sombok roof, a Khmer-style roof with long spires. These roofs have religious significance and typically appear on top of buildings such as pagodas and temples”, says Lim Try. All the buildings in the palace are embellished and painted in yellow (to represent Buddhism) and white (to represent Brahmanism).

Preah Tineang Chanchhaya (Chanchhaya pavilion) serves as a stage for the Royal Ballet, as a site for the King to address the crowds and as a place to hold state and royal banquets. The current pavilion is the second incarnation of the Chanchhaya pavilion; it was constructed in 1913-14 under King Sisowath to replace the original wooden building which was constructed under King Norodom in 1866.



Silver Pagoda inside the Royal Palace

Prasat Tevea Vinichhay, the Throne Hall, is an attractive building in the architectural style of the Bayon Temple in Angkor Wat. The hall is shaped like a cruciform and has triple spires. The central spire is crowned by a tower that is 59 meters high adorned with the four smiling faces of Brahma. The four smiling faces represent the four virtues of parents towards their children: mercy, compassion, sympathy and fairness. The inside of the building contains a beautifully tiled floor. Up to now, it is still the place where kings and queens are crowned. It is also used for diplomatic or other official meetings.

Wat Preah Keo Morakot, the Silver Pagoda,



Royal Palace

with a veranda that is characteristic of the period. The main house has an extended foyer and two rooms that are situated left and right of the foyer. At the back is a U-shaped staircase that leads to a gallery on the first floor. The hallway connects the main rooms that overlook the garden and the Southern part of the Royal Palace. Extensions on both corners were made prior to 1991.

The load-bearing walls of the building are made out of solid bricks. The slabs are out of concrete, the windows are made out of wood, metal and glass, and the handholds are out of metal. The building is excessive in ornamentation. There are so many different kinds of tiles used on the various floors that it makes the whole building seem like a tile museum. Something special is that there are also tiles on the ceiling. The columns of the gallery on the first floor contain interesting decoration: a human face and a phoenix. At the bottom of the first floor's handhold feature tiles in the form of ribbons and scrolls, what in Chinese belief, the expression of longevity and luxury.

UNESCO undertook a renovation of the villa in 2008, improving the roof and redecorating the walls as well as fixing the sewage water pipes in the basement which was turned into a safe storeroom for documents.

There are two more buildings left from the French colonial period close to the National Museum: a Royal Villa (Villa Picturesque) and the so-called No Problem building, north of UNESCO building. Villa Picturesque was built in the late 19th century, and it is in a dilapidated state. Constructed in 1905, No Problem Building on Street 178 opposite the entrance of the Royal University of Fine Arts is one of the few remaining royal villas, which is still in good condition.

Chhuon Sophorn

14 NATIONAL MUSEUM OF CAMBODIA & ROYAL UNIVERSITY OF FINE ARTS

The rust-red sandstone building is known as the National Museum of Cambodia. Inspired by Angkor Wat Temple, it was built in the shape of a Prasat Phnom stone temple, where the foundation stone is above ground level and the other parts of the building are arranged around the central tower in the style of a cloister. Oun Phalline, director of the National Museum, explains that the museum was built together with the art

was built between 1892 and 1902, during the reign of King Norodom, but at that time it was constructed out of wood and brick. It was damaged later, and reconstructed in 1962 on the same site with reinforced concrete. However, the look of the building remained the same. Its design is based on traditional Cambodian temple architecture. The floor is covered with silver tiles. It is the place where the king meets with the monks and where many royal ceremonies are performed.

The Napoleon III Pavilion was in fact the first permanent structure on the site of the Royal Palace. It was originally built in France for Empress Eugenie of France, wife of Napoleon III, in 1869 for use in the opening ceremony of the Suez Canal. In 1876, Napoleon III gifted the building to King Norodom. It is constructed entirely out of iron.

The walls of the compound are covered with the murals depicting stories from the Ramayana, the Khmer version of the classic Indian epic, the Ramayana. The murals were painted between 1930 and 1940 by a team of students working under the direction of artist Vichitre Chea and architect Oknha Tep Nimit Thneak. Some sections of the murals are deteriorated and weather-damaged.

Dareth Rosaline

13 UNESCO BUILDING

The UNESCO building was originally a residential house. The villa was constructed by a wealthy merchant, supposedly of Chinese origin. According to Philippe

Delanghe, Chief of the Culture Unit at UNESCO, the building must have been constructed between 1910 and 1920 according to old maps of Phnom Penh. There is also a series of photographs from the 1920s, which confirms the existence of the building. The UNESCO building is one of a number of villas from the colonial period that have been erected near the Royal Palace. It faces the Veal Preah Meru, the Mount Meru Square in front of the National Museum. This preferable location implies that the owner of the building enjoyed great social standing.



UNESCO Building

Chinese people resided in the villa until the Khmer Rouge took over. From 1979 to 1989, the building housed the Vietnamese Military City Police. From 1989 to 1991, the building was used by the Department of Conservation, Ancient Temples, Museums and Tourism. On 29 November 1991, Federico Mayor, then head of the UNESCO in Phnom Penh, officially opened the UNESCO office in Phnom Penh in the building.

The building has two parts, the main house and the annex which is connected by a walkway on the first floor to the main house. One enters the house through an entrance

school that is located behind the museum and today is known as Royal University of Fine Arts. The museum was supposed to provide original examples of ancient Khmer Art to the students in their pure and untainted form. “The first purpose of this school was to serve the needs of the Royal



Royal University of Fine Arts

Palace and of the National Museum”, says Sok Sophal, Deputy Dean of the Faculty of Architecture.

We begin our exploration of these two historical landmarks in front of the National Museum. The main entry to the museum shows Garuda, the king of birds, in a sandstone sculpture from the 10th century. Pictures from Khmer mythology are drawn with sheet gold on each wooden window shutter. Designed by George Groslier, the foundation stone of the museum was laid on August 15, 1917. It was opened as Musée du Cambodge in 1919, and renamed Albert Sarraut the following year to honor the long-time French Governor-General of Indochina. In 1961, the name was changed to National Museum of Cambodia.

Completed in two and a half years, this museum was officially inaugurated by King Sisowat on Khmer New Year Day, April 14 1920. In 1924, the original building was slightly altered with extension wings at either end of the eastern facade. In 1968, the central

section of the east facade was renovated under the supervision of Cambodian architect Vann Molyvann. It was closed during the Khmer Rouge Regime from 1975 to 1979, and re-opened on Khmer New Year day on April 13, 1979.

With its strong decorative elements like the wooden roofs topped with Jeavear, the curved extensions of the roof, its red color, the serene courtyard with its four fishponds and an inviting garden, this building keeps the original Khmer decorations in a building from the Colonial period. The museum houses one of the world’s finest collection of Khmer art and owns over 10,750 items. 17 percent of them are on display, while the rest is kept in a secure store room.

After a walk through the museum, we continue to the Royal University of Fine Arts, which is located at the back of museum. Many student works full of creative and new ideas are displayed on the university campus. This university was known as Ecole des Arts Cambodgien when it was established in Phnom Penh in 1918 under the directorship of George Groslier, who was also the architect of the National Museum.

Mr. Sophal says that in January 1965, this institution was merged with the National Theatre School and became the University of Fine Arts, as recommended by King Sihanouk. It was closed during the Khmer Rouge period and re-opened in 1980 as the School of Fine Arts. In 1988, the status of this school was changed from School of Fine Arts to University of Fine Arts. In 1996, the suffix “Royal” was added following the restoration of the monarchy.

Like the National Museum, the four old main buildings are in rust-red color topped with a tile roof and high windows.

RUFA today has five faculties: archaeology, architecture and urbanism, fine art, dance and music.

Rithy Lomor Pich

15 WAT BOTUM VATHEY

Wat Botum Vathey was established in 1442 by King Ponhea Yat. “Wat Botum Vathey, whose original name was Wat Khpop Ta Yang, was built on a raised ground,” says Chem Thyrack, deputy chief



Wat Botum Vathey

monk of Wat Botum Vathey. “At that time, Buddhist temples were built from wood.”

In 1865, it was rebuilt under King Norodom and renamed Wat Botum Vathey, which means “Pagoda of the Lotus”, because it was surrounded by ponds full of lotus flowers.



National Museum



Wat Ounalom

however, it contains the Buddha's eyebrow to which the people pray. It is a unique building in Cambodia, says Rit Rain, as there is no other Chey Dey in Cambodia that looks like it.

Today, Teb Vong stays in the former house of Chun Nat. Teb Vong is the superior of the pagoda and the patriarch of Cambodia. Teb Vong also has his own house that has just been built in the pagoda, but he does not stay in that house. Rit Rain says: "Chun Nat's house was home to the last five pagoda superiors, so maybe it is the reason why Teb Vong choose to stay in that house." Chun Nat's house is next to the main building and to Teb Vong's new residence. Today, a lot of tourists visit these three buildings every day.

Soy Dolla

17 PREAH SISOWATH HIGH SCHOOL

The oldest high school in Phnom Penh is the Preah Sisowath High School, also one of the most famous buildings in Phnom Penh. The school was established in 1873 as the School of the Protectorate, the architect was François Fontaine. In 1893, it became the College of the Protectorate. In 1905, it was named Lycee Sisowath. The school was closed during the Pol Pot regime, and reopened again on January 21, 1980.

Hourt Seing Hai, Deputy Director of Preah Sisowath High School, says that "the special



Preah Sisowath High School

thing about this school is that it is the oldest high school in Phnom Penh and a lot of important government people graduated from this school, for example Kep Chuk Tima, the Municipal Governor of Phnom Penh."

The school has 12 buildings including the new two building that were just added. The architecture is appropriate for the climate of Cambodia: every classroom has three big windows and one big door that allow the air to circulate. Each building has two old wooden stairs that have remained intact

He adds that at that time this kind of natural decoration was the only way to adorn the pagoda. At the same time, the lotus ponds kept the pagoda beautiful. This technique was also used in Angkor Wat where the temples originally were also surrounded by water. In 1937, King Sisowath Monivong and the Venerable Panhathybor Sok had the main temple rebuilt in brick and cement.

The Wat Botum complex is 260 meters long and 202 meters wide and has six gateways. There are 44 houses: one Buddhist temple, one gathering hall, one residence for high-ranking monks, one library, the building of the Writer's Association, two primary school buildings, one bell tower, and 37 monk houses. Around the main temple, there are many stupas. Behind the temple there are sculptures of tigers and lions. On the south side of the temple is the most important stupa of the Wat that contains a bone of the Buddha. On the walls inside the temple are paintings about the life of Buddha.

Vorn Sokhan

16 WAT OUNALOM

Wat Ounalom was built by King Punyear Yat in 1442. King Punyear Yat built not only Wat Ounalom but also five other pagodas that can still be found in Phnom Penh: Wat Koh, Wat Langka, Wat Preah Put Ku Sa, Wat Peom Tlong, and Wat Ta Yong. These five Wats are the oldest Wats in Phnom Penh. Facing the Tonle Sap River, Wat Ounalom is 149 meters long and 169

meter wide and has 40 buildings. In 2011, there were 375 monks and 700 students living in the pagoda, as poor boys from provinces who cannot afford a dorm room stay in pagodas in order to continue their studies in Phnom Penh, the so-called Pagoda Boys.

Around the Wat, there are residential houses. Some of them were built under King Sihanouk, some have been built only recently. The buildings that the monks and the students are living in look like simple houses all over Cambodia. There are two entrances in the west, three in the east, and two in the north. Those entrances were established under the rule of Norodom Sihanouk.

Rit Rain, the caretaker of the main temple, says: "The name Ounalom means Buddha's eyebrow", because the Buddha's eyebrow is placed in Wat Ounalom's Chey Dey or main stupa. "The main building was rebuilt in 1957 under Chun Nat who was the former leader of the pagoda," he added, and the construction was financially supported by former King Sihanouk. Chun Nat was the former Supreme Patriarch of Cambodia under King Sihanouk. He was also a famous intellectual, who created the first Khmer Dictionary. He died in 1967.

The main building has three floors. The first floor is for meetings, the second floor for ceremonies, and on the third floor is a sculpture of Buddha. There are a few old buildings that were built in 1942 like the Chey Dey of Ounalom. Chey Dey is the reliquary of the temple and often contains the bones of people who died. In Ounalom,



Chaktomuk Conference Hall

until today. Some of the buildings have been rebuilt, but in their original style.

Bo Sakalkitya

18 CHAKTOMUK CONFERENCE HALL

The building was designed by architect Vann Molyvann and opened as the “Salle de Conférence Chaktomuk” in 1961. Since then, the Chaktomuk Conference Hall has served many purposes. Originally, it served as a space for art activities and theater performances. In 1979, it was used by the Vietnamese for the first Khmer Rouge tribunal after the Pol Pot Regime. In 1991, the Hall was redeveloped into a restaurant. However, it was returned to its original function as a theater in 1994 when the National Theater, located on Preah Sisowath Quay in Sangkat Tonle Bassac, was demolished by a fire. The latest renovation of the Hall was in 2000. The hall functions as a place for important national and international business and political conferences. Still, the Ministry of Culture and Fine Arts keeps Chaktomuk Conference Hall to play its original role as a theater venue for special and official programs or ceremonies organized by the ministry.

The hall has the unique shape of a fan with a traditional Khmer tower on top as a decoration. As can be seen from all directions, the structure of the hall is built on columns, a typical feature of the architecture of Vann Molyvann. The roof on top of the middle of the building is called Bossbok which is typically found on Buddhist temples in Cambodia, because the hall was erected for the World Buddhist Conference. The name

of the Chaktomuk Conference Hall comes from its location near the Chaktomuk (“four directions”), the location where Tonle Sap, Tonle Bassac and the Mekong converge into the lower Mekong. The hall is a good source for reflections on the New Khmer Architecture of the 1960s and Buddhism. Today, Chaktomuk Hall is one of the must-see tourist attractions in Phnom Penh.

Vann Chanvetey

19 INDEPENDENCE MONUMENT

The Independence Monument (Vimean Ekareach) was built in the year 1958

in order to commemorate the country’s independence from the French regime on November 9, 1953. The idea of building this monument came out of Norodom Sihanouk’s era.

The Independence Monument is a magnificent construction that was built with modern construction techniques. It was designed by one of the most famous Cambodian architects, Vann Molyvann. Un Channaroern, a Cambodian architect, says about the Monument: “Every piece of architecture has its own special character and the Independence Monument was not built only as a beautiful building for sightseeing, but the architect has his own idea to locate and design it like that.”

Firstly, the location of the Monument is at the intersection of Sihanouk and Norodom Boulevard, the biggest and busiest road in Phnom Penh that on the other end circles around Wat Phnom. Secondly, the architecture was not only designed to look modern or beautiful, but it also carries a message. The monument is 20 meters high and it is made out of red stone similar to the one used for the great Khmer temples in Angkor Wat. It was designed in the form of a lotus and is adorned by the heads of Naga snakes.

Un Channaroern says: “There are 100 Naga heads on the building that has been inspired by Bantey Srey temple. Naga, a mythological dragon, represents the development of



Independence Monument



Wat Langka

the Kingdom of Cambodia since the first Khmer Queen, Leiou Ye, who is known as the daughter of a Naga.”

When the monument was built, the area around the Monument and between Norodom Boulevard and the Tonle Sap river had just been reclaimed. The land was so soft that architects and engineers were worried about its stability. Then a mason and stone carver, Tan Veut, created a network of piles to anchor a reinforced concrete platform that was to support the monument itself. Next to the monument, there are the Naga fountain and the lotus pond that were inaugurated together with the park around the Monument that make the whole area look more beautiful.

Mer Chanpolydet

20 WAT LANGKA

One of the five oldest pagodas in Phnom Penh, Wat Langka was built in 1437, during the reign of King Ponhayat, when he first moved the Khmer capital to Phnom Penh. The whole site measures one hectare and nine square acres, and the monastery is in the center of the compound. The monastery was built to preserve holy scriptures and also as a meeting place for Cambodian and Sri Lankan monks. Therefore, the architecture of the monastery combines elements of Khmer and Sri Lankan Buddhist architecture. There are three main entrance gates built in that Khmer-Sri Lankan style. “Wat Langka served as a storehouse dur-

ing the Pol Pot regime, so it was not totally destroyed. Now, however, all the building have been fully renovated besides three Kot (the dormitories of the monks) which are still in their original state”, says the Venerable Sim Sarann, a monk from Wat Langka.

Lim Meng Y

21 MUNICIPAL APARTMENTS

In 1963, Khmer architect Lu Ban Hap in collaboration with Russian-French architect Vladimir Bodiensky built an apartment building for the staff of the National Bank, the so-called “White Building” on Sotheaors Boulevard. It is called “White building” because its original color was white. The color has changed to a dirty grey because of the effects of the weather and because it has not been maintained.

It was part of the Bassac River Front, an ambitious proposal for the new Phnom Penh from 1961. The Bassac River Front was a group of buildings that were erected on 24 hectares of reclaimed land along the Bassac River that included low-cost housing and public buildings that completed the perspective up to the Independence Monument.

Apart from the “White Building”, the Bassac River Front included an Exhibition Hall, the Olympic Village (today completely modified and known as Phnom Penh Center) and the National Theater. There were other buildings that were planned but never built,

including the parliament, a museum devoted to Norodom Sihanouk’s royal crusade for independence, an art, music and dance school, the government tourism office and an art gallery.

The “White Building” is more than three hundred meters long. The 468 apartments are arranged in six distinct blocks that are joined and yet separated by open staircases. People could therefore walk through the building and enjoy easy access to a landscaped park west of the building. Originally, the main entrance was on the east side of the building. The plans of the apartments were designed with the tropical climate in mind: kitchens and bathrooms are accessible from balconies that could also serve as external kitchens. The size of the apartments ranges from one to three rooms, and they are all cross ventilated.

Thach Soben, 37, a resident of the “White Building” says that the building is really cool at night and even in the daytime it does not get hot at all because of the cross ventila-



Municipal Apartments

tion. Even though she likes living here, she is worried about the number of people in the building. She is afraid that if nobody pays attention to its preservation, it can be a problem for her and all the residents.

Today, it still serves its original function as an apartment building. The inhabitants include regular families, but also drug-addicts and prostitutes. Hence, the reputation of the building is not good at all.

Song Kimsour

22 NATIONAL ASSEMBLY

The National Assembly Palace of the Kingdom of Cambodia was built in 2003 and finished in 2007 by Chheam Yeap, Thong Virak Pheap, Thong Ly Chheng and Ly Chhuong. It is surrounded by the Buddhist Institute at the North, the Ministry of Foreign Affairs at the East and a new street at the South. It is decorated with nagas and lions in the style of Angkor Wat. Other decorative elements are inspired by the Khmer architecture of Long Vek and Udong period between the 16th and the 19th century. It is constructed on a total area of 20,213 square meters and surrounded by a cement fence. The fence has a row of folding lotuses on top. At the north-west, a massive statue



National Assembly

of Garuda is standing in front of a laterite fence. On either side of the central gate are two guardian statues.

Song Kimsour

23 AN TRY'S HOUSE

On the corner of Norodom Boulevard and Street 380 stands a big private residence in the style of a European castle. The house is surrounded by secrecy: no one seems to know who exactly the owner is.



An Try's House

All the security guard at the front door is ready to reveal is that the house belongs to the distributor of Tiger Beer in Cambodia. Prak Maly, the village chief of Boeung Keng Kang 1, says that house's owner is An Try, one of the richest business men in Cambodia, and his wife Chhun Liang. Both don't have any position in the government. According to Prak Maly, the owners did not receive a building permit for the house from the village chief of Boeung Keng Kang 1. She adds that they might have requested the permit from somewhere else. The house has been under construction for around seven years and is still not completed. All of the building material has been brought in from foreign countries.

Yar Rorsart

24 CHAMKAR MON COMPOUND

The Chamkar Mon compound – that is now used as the Senate, the Constitutional Council and the Supreme Council of Magistracy – was built as a state building and residences for Norodom Sihanouk and his family. This compound was designed by Lu Ban Hap (master plan, offices and residences) and Vann Molyvann (State Palace, offices and State Guest House). The different buildings emerged over a period of about ten years. The Chamkar Mon Compound includes a number of formerly private residences such as those of Norodom Sihanouk, Norodom Minineath, Norodom Bopha Devi etc. The State Palace was mainly used for official functions and to receive official guests. The east wing of the building was used as Norodom Sihanouk's



National Senate in the Chamkar Mon Compound office. The main structure is made out of reinforced concrete with the characteristic self-bearing roof shaped like a row of V's. Natural materials were used to decorate the building such as gold-colored anodized aluminum for the door and black marble for the floors. A big garden surrounds the building and includes a walkway, swimming pools and fountains.

Bo Sakalkitya

25 OLYMPIC STADIUM

The Olympic Stadium or National Sport Complex was designed by Vann Molyvann. The construction of this stadium began in 1963 and was completed in 1964. It is a multi-purpose stadium because most sports can be done here. The stadium was built by the use of massive earthworks. Vann Molyvann decided to dig up 500,000 cubic meters of earth to shape the grounds. The stadium has 50,000 seats, and it can accommodate up to 80,000 people. Unfortunately, this stadium never had the chance to host Olympic Games, but it is home to the Cambodian football team. There are some popular competitions that took place there such as Volleyball, Basketball, and Taekwondo. Moreover, it is also famous for hosting swimming, boxing, and volleyball competitions. The stadium has an indoor stadium, an outdoor stadium, and a swimming pool. The outdoor stadium includes training fields, a water-treatment plant, water pumps, mechanical engineering and a car park. In the indoor stadium, the wall screening between the seats and the ceiling is made of alternating V-sections which provide perfect ventilation and protection from the sun, natural diffused light and protection from heavy rain. The architect wanted to finish the building within 15 months to enable interior work during the rainy season.

Architecture student Chhit Vongseyvisoth from Norton University says: "There are two buildings in Cambodia, which I really appreciate, and one of them is the National



Olympic Stadium

Olympic Stadium in Phnom Penh. The architect has thought about well-designed space for walking and sitting. It also has good sound, and a lot of air and light. If this was not well-thought out, the performances there not have a good sound.”

While this building has been a boon to Cambodia, recently there also have been some negative developments. The space around the stadium is used by car repair shops, as a garbage dump and as a parking lot for buses. Vendors sell drinks and snacks to the people who play football and volleyball, and the customers throw their garbage on the floor. In addition, there is no sufficient control of the vehicles that enter the compound, and cars, motorbikes, and bicycles can park at the stadium for a small fee.

Ul Chheng, an architect lecturer at Norton University of Phnom Penh, says: “I am



Olympic Stadium

really disappointed by the fact that there have been new buildings constructed all around the National Sports Complex which hide the stadium.” He adds that the new

buildings have encroached on the ground of the Olympic Stadium. They block the view of the Olympic Stadium and have left no space to park cars.

Heng Guechly

26 TRAIN STATION

The train station is the first impression of the visitor who wants to travel across the country by train. It is located next to the University of the Health Science and the



National Train Station

National University of Management. The building from French colonial period is designed in art deco style. The station was built in 1932. The architect is unknown. The Phnom Penh train station has much in common with Phsar Thmey, the new market. Reinforced concrete was used to build a dome structure with high ceilings. Both buildings use lattice-work that makes the hall light and airy. “The building fits the weather in

Cambodia. The ventilation is good”, says ly Borin from the Ministry of Public Works. “It does not get hot at all inside.”

Samreth Meta

27 VATTANAC CAPITAL TOWER



Vattanac Capital Tower

Vattanac Capital Tower is promoted by its builders as one of the highest and most luxurious towers in Phnom Penh – once it is finished. The high rise consists of two towers and a glass and steel podium. Tower 1 is a skyscraper with 39 floors, Tower 2 has six floors. The height of the building is 187.3 meters. Vattanac Capital Tower will include the headquarters of the Vattanac Bank, trading floors, offices, 29 elevators and five-star serviced apartments.

Vattanac Sam Ang, executive director of Vattanac Properties Ltd, says that the tower has a good design from British ar-

chitecture firm Terry Farrells and is a high quality construction. “The building is different from others, and so far no company has built such a kind of building. We have followed the internationally recognized British construction code,” adds Sam Ang. The designers say the shape of the building is meant to evoke a dragon’s back, symbolizing good luck and wealth.

Cheng Bunlong

28 THE OFFICE OF THE PRIME MINISTER

The Office of the Prime Minister, also known as the Peace Palace, was officially opened on October 19, 2010, by the King of Cambodia, Norodom Sihamoni, and Prime Minister Hun Sen. According to a press release of the Press and Quick Reaction Unit, the building’s design is a combination of Khmer building styles from the Angkor period and modern architecture that defines a new style.

Seen from a bird’s eye perspective, the building with its two wings and the prominent exit is shaped like the letter E. The wings have been added to avoid the simple square shape which is, according to architect Chheang Sidath, “considered to be a flaw in architecture.” Besides that, the two wings provide more space for the building’s function – to house meetings and conferences, such as the recent ASEAN summit.

On the eaves on top of the building is the Cambodian coat of arms surrounded

by the Bang Klaeng ornament, one decorative element in ancient Khmer architecture that was first used on Preah Ko Temple in the 9th century, that is part of the Rolous group in Siem Reap, and on Banteay Srei temple in the 10th century. Also, the walls and the main gate around the building are embellished with the modernized version of the Bang Klaeng.

Architect Chheang Sidath says: “This modernized Bang Klaeng shows the Khmer identity and adds to the beauty of the building. Below each Bang Klaeng is a long, straight window that lets in enough light.”

This building is 52 meters high and has an internal space of 50,790 square meters over five main floors and three mezzanine floors with a height of 5.5 meters. Despite its size, it took only 17 months from the design to the final construction.

The building was constructed by the Ly Chhuong Construction Import & Export Company in consultation with Samdech Chaovea Veang Kong Som Ol, the Minister of Royal Affairs. According to Prime Minister Hun Sen, the Peace Palace is considered as a symbol of Cambodia’s great achievement, since all engineers, architects, constructors and designers who contributed to the building are Khmer.

The Peace Palace was constructed exclusively out of the national budget. The building cost 50 million dollar, a sum that does not include the interior equipment and furniture.

Chey Phearon



The Office of the Prime-Minister

29 COUNCIL OF MINISTERS

The Office of the Council of Minister is the secretariat office of the Royal Government. It was completed after two years of construction, and official opened in April 4, 2009. The building was donated by the government of the People’s Republic of China. It costs 32.9 million dollar and was



Council of Ministers

named Friendship Building (Mittapheap), to express the friendship between Cambodia and China. The Council of Ministers has seven floors with a total height of 40 meters. The total space of 32,580 square meters can accommodate 1,400 people. There are twelve elevators. This building has been the Royal Government’s busiest office that hosts cabinet meetings, receptions of international guests, inter-ministerial and inter-institutional meetings and administrative coordination. In this building, there are offices of the leaders of the royal government, office of the Council of Ministers and a conference hall that can accommodate up to 200 people.

Yoeun Phary

30 ROYAL UNIVERSITY OF PHNOM PENH

The Khmer Royal University was inaugurated in 1960 with only three buildings: the Sangkum Reastr Niyum University main building, the auditorium, and a dormitory. The master plan was conceived by two French architects, Leroy and Mondet, who were also responsible for these three buildings.

The main building has six floors and 100 classrooms and laboratories, libraries, a medical centre and a teacher’s room. It also features a roof terrace of 2,000 square meters for outdoor lectures that is protected by a second roof.

The building is influenced by the European Modern Movement and has borrowed ideas from Le Corbusier, a French architect, who often used substructure being made of gigantic columns, such as his Unité d’Habitation, which was built in Marseilles in 1954. As Helen Grant Ross and Darryl Leon Collins



Auditorium of the Royal University of Phnom Penh

point out in their book *Building Cambodia: New Khmer Architecture 1953-1970*, the most interesting aspect of this building is the technical prowess required to build it, because the whole weight of the building is borne by a few columns.

The parabolic auditorium hall is one of the most interesting structures on the campus. This building has been inspired by the Bacardi factory in Mexico City, which was designed by Ludwig Mies Van Der Rohe and Felix Candela in the 1950s. It is a complex formwork.

The Teacher Training College, today known as the Institute of Foreign Languages, was inaugurated in 1972, when Vann Molyvann, the architect who designed this building, had already left Cambodia after Lon Nol came to power. The building has the form of an inverted pyramid. A sky-footbridge connects the building to the main gate of the university and to the lecture halls, creating an interesting panorama. The building is surrounded by moats that cool down the air and the buildings. Each floor hangs over the lower one. This creates not only a strong geometrical effect, but also provides shadow for the lower floors. The roof of this building is formed like a honey comb, so the roof buffers the heat and protects the interior from the sun light and the rain. Inside the building, there is an immense hall

with staircases, balconies and columns with light penetrating the building indirectly.

Apart from the main building, there is a small library which is inspired by the traditional Cambodian straw hat. This building might be the most interesting component of the Institute of Foreign Languages. Inside the building, the light is filtered by the ingenious location of the columns so that one is never blinded or troubled by intense sun light. After Lon Nol's coup d'état, the name of the university was changed to University of Phnom Penh. It was closed in 1975 by

the Pol Pot regime. However, during the Khmer Rouge period none of the buildings were destroyed. In 1981, the university was opened again as the "Teacher's Training College" and the "Institute of Foreign Languages". In 1988, the school became the "University of Phnom Penh", and in 1996, its name was changed to "Royal University of Phnom Penh", according to Ponn Chhay, Vice Director of the Royal University of Phnom Penh.

An Danhsipo



French Department, Institute of Foreign Languages

31 RUPP CAMPUS II

The Campus 2 of the Royal University of Phnom Penh was built between 1989 and 1991 with the support of the Vietnamese Communist government. It is located on five hectares of land on Russian Boulevard and has a lot of dark red brick walls and bridges. Apart from the class rooms of the Departments of Geography, History and Sociology, there is also the Royal Academy



Royal University of Phnom Penh, Campus II

of Cambodia on the compound that uses the former canteen as office space. The former university dormitories house the research center of the Royal Academy of Cambodia.

Oum Pom, the Secretary General of the Royal Academy of Cambodia, remembers: “In today’s Institute of Foreign Languages (IFL) was a political training center after the Vietnamese took control of Cambodia. However, since the building was small, we decided to build a new and more comfortable one.” Oum Pom, who was the vice president of this school, adds that the professors and teachers - who were high ranking officials of the Cambodian Communist government - gathered to choose the location and the building style. Formerly, the Parachute Unit of the Cambodian Army was located on the lot. Acting on the request of the People’s Revolutionary Party of Kampuchea, the Vietnamese government decided to send architects and workers to construct the campus. The names of the Vietnamese architects have not been recorded.

Pom adds that the architecture of the new campus was influenced both by the ancient

style of Khmer temples from the Angkor period and by a visit to some outstanding modern buildings such as the Hotel Cambodiana and the original university campus, where the political training center was located at that time. Pom says : “We believe that the two ponds and its bridges were inspired by the ponds of the previous school (today’s IFL) and Angkor Wat. It makes the students feel calm and cool during the classes and helps them to relax.” In ancient temple archi-

ecture, the Cambodian ancestors usually adorned the buildings by surrounding them with ponds and add bridges decorated with dragon heads, he adds.

The school was supposed to teach the students Marxist-Leninist Theories and how mankind would evolve toward socialism. As the Vietnamese left Cambodia in 1992, the school was never opened, and the Cambodian Communist government decided to hand the building over to the Ministry of Education.

Leng Len

32 NATIONAL TECHNICAL TRAINING INSTITUTE

The National Technical Training Institute (NTTI) was built in the period of Sangkum Reastr Niyum. Norodom Sihanouk ordered the construction of a training center for Cambodian electrical engineers. He inaugurated this building on June 17, 1969, and named it Preah Kossomak Centre. The architect, who designed and built it, was Mam Sophana, a famous Khmer architect.



National Technical Training Institute

There is a small pond in front of the building, and a large lake at its backside that reflects the building. The elegant columns standing in a row at the façade in front of the rectangular red bricks walls are a special and attractive part of the building. When moving quickly along the building, these columns look like dancing people, says Mam Sophana. He adds that he and the constructors spend nearly six months to create these columns. The façade has louvered doors that let fresh air into the building.

During the Democratic Kampuchea regime from 1975 to 1979, the school was closed. After the liberation, it was a storehouse of Electricité du Cambodge and later became a training centre. With the help of the Soviet Union, that also send training lecturers, the building was renovated in 1981. In 1987, the Ministry of Education took control of the building. NTTI is located in Sensok district’s Teukthla commune, Phnom Penh. To find the building, turn right into the small road opposite the Metfone office on Russian Boulevard. NTTI is close to the Toek Thla pagoda.

Rann Samnang

33 OLD AIRPORT

The Control Tower and the VIP Canopy at the Old Airport east of the new terminal building have been built by Pierre Dufau (air terminal and control tower) and Vann Molyvann and Guy Lemarchands (Canopy). Construction of the tower began in 1956. In 1963, Vann Molyvann designed the original VIP arrival pavilion, a tent-like tensile structure. It was replaced by a fan-shaped structure out of reinforced cement in 1966 for the state visit of French President Charles de Gaulle. Today, the functional purposes of the two facilities have remained. The VIP canopy is used to welcome dignitaries during major events but not as often as in previous decades. “In the future, in order to upgrade its capacity, it is planned to either further heighten the

building or to relocate it to the other side of the current runway”, says Norinda Khek, who works as a Communication Manager for the Phnom Penh International Airport. “I think these buildings are definitely strong symbols of the airport, and they represent the legacy of over 40 years of Cambodian history. They are the most recognizable buildings at the airport.”

Muong Vandy

34 TRADITIONAL STILTED HOUSES

Travelling to Sangkat Boeung Kok II near Indarak Tevi High School, you will see a luxurious Khmer traditional wooden house. You might feel surprised that there is still that kind of house in Phnom Penh. Seeing it from the outside, it may make you interested, and you may think that it should be wonderful to live in this house.

Khmer traditional houses, like this newly constructed one in Phnom Penh, are built high over the ground on stilts. The Khmer ancestors normally used wood as the foundation, and all the other materials are from plants such as leaves, bamboo, palm trees, thatch and vine. The only exception are the tiles on the roof. The main elements of the Khmer traditional house are the roof, lattice, stilts and walls. The stilts are made out of hardwood, and the walls are made out of simple wood with palm leaves or other plant leaves as roofs.

In Cambodia, building houses over the ground offers a lot of advantages. During the monsoon season they protect the inhabitants from floods. Another benefit is



Traditional Wooden House



Old Airport, VIP Canopy

air circulation. When the houses are above ground level, the air can move freely under the floor, so people can get fresh air and feel comfortable. It also helps to keep dangerous animals such as tigers, snakes or foxes out of the house. The space under the house can be used to keep rice paddy and tools.

Choeurng Yoeurng, 44, who owns a traditional house in Kompong Thom province, says: “Living in my own house in the province is better than living in most of the houses in the city, like the ones I stay in when I visit my relatives.” She adds that in summer her house might be hot, but she can stay in the space under the house that is cooler. On the other hand, when there is a flood in the rainy season, she doesn’t worry, because she can stay safely in the house high above the ground.

According to Khmer superstitions, many people in Cambodia believe that living in houses that are built directly on the ground will lead to unhappiness. They believe that guardian spirits such as Chum Neang Phteah, who protects everything in the house, are staying in the stilts or on the ladder that lead to the house. Due to another superstition, Cambodians also avoid to use two different types of wood for the stilts, because it would lead to unhappiness for the family.

Va Borin, a lecturer of architecture at Royal University of Fine Arts, who has done research on the Khmer traditional houses, says: “The traditional Khmer house can adjust to different types of climate. And the traditional way of building is not simply based on superstition and irrational folk beliefs. They can be explained in a logical and scientific way.” While the Khmers belief that using two different kinds of wood for the stilts will make the house owner unhappy

and restless, the scientific explanation for this custom is that the combination of different woods is simply not strong enough.

Another folk belief is that – when choosing a place to build a house – the owners must consult Preah Phum, a spirit that looks after the whole village. They also have to look for a place that has a water resource such as a lake or a small river in the North and that has a high ground in the South. While the unscientific explanation for this believe is that it keeps unhappiness away, the scientific explanation is that when there is a water resource, it helps the owner of the house to get cool air.

Sreng Phearun

35 FLOATING HOUSES



Floating House at Tonle Sap

Traditionally, there are two types of Cambodian houses: those on land and those on water. They are very different from each other in terms of architecture. Mostly fishermen and their families live in floating houses on the water. Today, the only Cambodians who live in floating houses can be found on the Tonle Sap lake. The floating houses that can be seen on the Tonle Sap river in Phnom Penh along National Road 1 and 5 belong to Vietnamese and Cham people. Many of them came to Cambodia as immigrants and therefore have no land of their own.

Ny Gnor, who owns a house in the Tonle Sap along National Road 5, explains: “There are two ways to construct a floating house.” Either the house is constructed on land and then put on a bamboo raft that sits on metal oil tanks and Styrofoam which keep the house floating on the water. Or the house is constructed on the water itself. The builders float a bamboo raft on oil tank and Styrofoam boxes on the water and construct the house on top of it. Floating houses can move from one place to another and are secured by being tied to a big tree or with the help of an anchor.

Vorn Sokhan, Ven Sakol

36 NEW NORTON UNIVERSITY



New Norton University

The new campus of Norton University has finished construction in 2010 near Chroy Jongva bridge. It is designed in a Khmer Modern style. Now students can start their classes on this campus. Nhem Sovandy, a design engineer at Japan Technical Steelworks Co.,Ltd at Phnom Penh Centre and a former Norton student, says: “The new campus of Norton University has six floors. There are four floors with class rooms, one floor with the canteen, and the top floor with workshops for the final year students. The new building was constructed because the number of students has increased. They cannot contain all students in the old campus in Daun Penh.” Chan Sok Khieng, the owner of Norton University, asked all the architecture lecturers of the university to collaborate on the design of the building. The architecture tries to integrate the style of Khmer temples with the modern style. For example, the tower on top of the building resembles that Preah Vihear, while the roof looks like the roofs of Angkor Wat. The main entrance has the form of an eagle because it is an animal that has power and willingness to protect. The different floors are covered with granite and marble.

Muong Vandy

37 PRASAT PHNOM DA

Phnom Da is located in Prek Ta Phor village, Kork Thalork commune, Angkor Borei district, about 24 kilometers east of Takeo town by water canal or about 100 kilometers south of Phnom Penh by the road. Phnom Da is a historical place that



Phnom Da

has been renovated to provide visitors a place to relax or to research Cambodian history. This temple was constructed on a small mountain in the 6th century by the King Rut Trak Varman during the pre-Angkorian Norkor Phnom period. The temple is 12 meters wide and 18 meters high. It is built up from laterite, brick and sandstone. Phnom Da temple is not enclosed by any wall and faces northwards. The top of the temple was damaged, and it has three false doors and one real door on the north side. The scenery is beautiful all year. This area is flooded six months of the year during the rainy season, and dry during the rest of the year. In the rainy season, there is a vast water basin that produces lush, green rice paddies during the dry season. Pun Soben, the old caretaker of the temple, says: “The sculptures on the wall of the temple tell the story of Ko Samut Teuk Dos.” He adds that at the lowest point of the mountain, there are five caves with a Shiva lingam and an Uma yoni in every cave. During the Pol Pot regime, between 1975 and 1979, the caves were used as cremation places by the Khmer Rouge. Every year thousands of local and international tourists visit Phnom Da. This work of art belongs to the Koh Kok Thlork period.

Sour Piseth

38 PHNOM UDONG

Phnom Udong is located in Kandal province about 40 kilometers northwest of Phnom Penh along National Road Number 5.

Its complete name is Phnom Udong Meanchey (Noble Victory). Phnom Udong dates from the early 7th century and was the old capital of Cambodia from 1618 to 1866 before the capital was moved to Phnom Penh. The mountain stands along from Southeast to Northeast. At the base of the mountain is a memorial with bones of some of the hundreds of bodies exhumed from a large Khmer Rouge Killing Field. On the path up the mountain on the right, the stairs climb steeply leading to a destroyed temple with a statue of Buddha that has been destroyed during the civil war after 1970. This temple was built by the Chinese in the 18th century. Ordinarily a statue of Buddha is built to face the east to greet the rising sun; in the case of this Buddha it was built to face China. It is thought that this was to move the power of a sleeping dragon that lies within the mountain over to China.

One of the most famous stories in the region surrounds the old Chinese Buddha temple. Mr. Rath, an old men who lives in the area, recalls: “The Khmers say the temple has the shape of a Naga, the magical multi-headed serpent that guards the Buddha.” According to folklore, a Chinese



Phnom Udong

king sent his people out across Asia to identify potential threats. When they came to Udong, they saw the mountain shaped like a Naga and observed the wealth and power of Khmer society. They went home and told their king that the Khmers were already a powerful race, and should a Naga appear on Phnom Udong, they would be strong enough to lead the world.

On top of the mountain, a huge stupa is in the final stages of construction. This is where the Buddha relics – that were once housed in the Vihara outside the train station in Phnom Penh – are placed.

Sour Piseth, Sreng Pearun

STHAPATYAKAM

The Architecture of Cambodia

ស្ថាបត្យកម្មកម្ពុជា

1. Chinese House
2. Kantha Bopha Hospital
3. The Council for the Development of Cambodia
4. National Library
5. National Archive of Cambodia
6. Raffles Hotel Le Royal
7. Wat Phnom
8. Post Office
9. Hemakheat Cinema
10. Phsar Thmey (Central Market)
11. Ciné Lux
12. The Royal Palace
13. UNESCO Building
14. National Museum of Cambodia and Royal University of Fine Arts
15. Wat Botum Vathey
16. Wat Unalom
17. Preah Sisowath High School
18. Chaktomuk Conference Hall
19. Independence Monument
20. Wat Langka
21. Municipal Apartments ("White Building")
22. National Assembly
23. An Try's House
24. Châmkar Mon Compound
25. Olympic Stadium
26. Train Station
27. Vattanac Capital Tower
28. Office of the Prime Minister
29. Council of Ministers
30. Royal University of Phnom Penh
31. Royal University of Phnom Penh Campus 2
32. National Technical Training Institute
33. Old Airport
34. Traditional Stilted House
35. Floating Houses
36. New Norton University
37. Prasat Phnom Da
38. Phnom Udong
39. One Hundred Houses
40. Mission des Sœurs de Providence Hospice
41. Borei Keila
42. "Round House"
43. Ministry of Labour
44. Former Ministry of Industry
45. Camko City
46. Koh Pich
47. Bassacc Garden City

