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# Gold Medal of Yesenin



**Chairman Kim Jong Il received Gold Medal of Yesenin from the Moscow Committee of the Union of Russian Authors and Editorial Board of *Moscowiaya Literaturnaya* in March 2008.**



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In Korea there is under way a vigorous all-people drive for afforestation and conservation of forests.

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**Front Cover:** Saplings are tended well at the Mundok County Forest Management Station in South Phyongan Province

*Photo by Ra Phyong Ryol*



**Back Cover:** A mass drive is under way to plant trees

*Photo by An Kang Rim*

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# Into “Gold Mountains,” “Treasure Mountains”

## A new history of “gold mountains”

THE EXPRESSION “GOLD MOUNTAINS” began to be used in the country two years after its liberation from the Japanese imperialists’ military occupation.

There was the Kuji village in a valley in Yangdok County, South Phyongan Province. The valley is deep and thickly wooded, so it is said that one cannot find one’s ox when it hides in the valley. Though the country was liberated the village people were still making their living by doing farming on slash-and-burn fields.

In September 1947 Kim Il Sung, leader of the new Korea, visited the village, the poorest one in the county. To go there he had to cross stepping-stones covered with fur, cut the way through bushes and climb up a rugged mountain slope. He dropped in at Ri’s home and sat on a straw mat, having a talk with the elderly man. When the leader asked Ri what kinds of wild fruits, edible herbs and trees were there, he replied that there were wild grape, fruit of tara vine, wild pear, pine nut and acorn, and went on to say that they mixed acorns with foxtail millet or potatoes to supplement their food, that other wild fruits were used for children’s eating between meals, and that medicinal herbs were crushed to stick on injuries.

Then the leader pleasantly said: Wild fruits, edible herbs and medicinal herbs might produce a great income without investments. If you collect medicinal herbs, wild fruits and edible herbs and sell them to the state, it will produce medicines and foodstuffs needed for the promotion of the people’s living standards, and thus mountain people can get a lot of income as they only have to gather and sell those things without any investment.

Realizing belatedly that the man he was having a talk with was the leader of the country, the old man took out a small notebook from his pocket, and with a pencil butt suspended with thread from the book, neatly wrote something on it while moistening the pencil on his lips. Then he said to the leader that he had written on the book that General Kim Il Sung visited his house on September 29,

1947, and that he would hand down the book from generation to generation.

Then the leader said: You had better write “Gather gold from all mountains,” and hand it down to your descendants.

The next day Kim Il Sung sat together with the people of the village, and taught them how to use mountains to improve their life quickly.

Later, the local people carved on a steep, huge rock near the low-hipped log cabin the leader’s instruction for the old man to write “Gather gold from all mountains,” and hand it down to his descendants.

The instruction of the leader became a famous aphorism, encouraging the whole country to strive to open a new history of “gold mountains.” And a nationwide campaign was conducted to comprehensively use mountain resources, and increase the valuable assets by protecting them well and developing new ones.

## What is true patriotism?

*Socialist patriotism is not an abstract concept, but a specific ideological sentiment that sprouts and develops from treasuring even a single blade of grass or tree of one’s motherland. Those who are well aware of the beauty of their own country and love it ardently will sacrifice their lives for the sake of the Party and the leader, the country and the people.*

This is an aphorism that reflects Chairman Kim Jong Il’s view of life. He paid deep attention to afforestation of the country throughout his life.

On October 10, 1950, during the Korean war, young Kim Jong Il planted two young pine-nut trees on Mt Jangja to mark the founding anniversary of the WPK. The next morning he watered the trees, and said to the accompanying officials that if the Americans burned one tree, they had to plant ten, even a hundred trees to make the country’s mountains and fields greener.

Now lots of saplings cultivated from the seeds of the trees have grown in thick verdure across the country.

One day after the war Kim Jong Il planted ▶

**M**OST OF KOREA’S territory consists of mountains. It is one of the main policies of the Workers’ Party of Korea (WPK) to turn all the mountains into “gold mountains,” “treasure mountains.”

► various trees around his school together with other students, and said to them that now there were no undamaged trees anywhere in the country, and that they should plant and take care of even a single more tree.

Once the Chairman visited a unit of the Korean People's Army and planted trees together with its soldiers. And referring to planting and tending trees as a worthwhile undertaking for the eternal prosperity of the country and the happiness of all generations to come, he earnestly said that they should vigorously wage an all-people campaign to hand over a beautiful land and rich resources to the posterity.

During his field guidance he meticulously examined long-term plans of afforestation scheme put up at workplaces, and when he visited factories, he was more pleased to see their buildings surrounded by lush verdure with birds chirping on them more than their updated production processes. And when he inspected a KPA unit and saw persimmon trees encircling its barracks, he pleasantly called it a Persimmon-tree Company. He would spoke highly of army units that took the lead in planting trees, calling them units of patriots.

Whenever he saw a poorly-wooded mountain, he was too heartbroken for a long while, and whenever he saw army units and workplaces sheltered by verdure and a vast expanse of field surrounded by a windbreak, he was so happy that he used to say, "Green mountain" and "Green field." This is why Supreme Leader Kim Jong Un said that Kim Jong Il's patriotism is genuine patriotism that holds dear every tree and every blade of grass

of the country and devotes one's heart and soul to looking after them.

### Call of patriotism

One November day in 2014 Supreme Leader Kim Jong Un inspected the Central Tree Nursery.

He said: I remember the General [Kim Jong Il] saying with great pleasure that he seemed to see the future of the country covered with verdure as he saw the proud appearance of the tree nursery. He was a peerless patriot who valued and loved the mountains and rivers of the country like his own flesh.

Then he said that the entire Party, the whole army and all the people, regarding forest restoration as a struggle to improve nature, should turn out in the forest restoration campaign like the whole country had risen from the ashes during the postwar reconstruction.

He said: It is the unshakable determination and will of our Party to turn all the mountains into thickly-wooded "treasure mountains," into "gold mountains," within the coming ten years, true to the intentions of the great President and General.

His earnest call encouraged all the people to turn out in the sacred patriotic undertaking.

Today in Korea modern sapling production bases have been built according to a national afforestation plan, and scientific, industrial and intensive methods of producing saplings are being introduced. And an all-people drive is under way to create and protect forests.

*Jang Myong Sik*

before use.

The expansion rate of the extinguishing agent is 100 times, so it is good in multiplication. And it causes no environmental pollution. When it is used in case of a forest fire, foam and carbonic acid gas come from it by heat, checking the contact between the flames and air.

If the inhibiting agent is sprayed over the extinguishing agent or the front edge of a place where a fire is spreading, it inhibits the evaporation of the foam and generates an inactive gas, thus enhancing the efficiency of extinguishment. And the ensuing formation of a flame-resisting layer inhibits the danger of the recurrence of the fire.

The agents are favourably commented upon for their utility and low price.

*Sim Chol Yong*

## Forest Fire Extinguishing Agent Developed

RECENTLY RESEARCHERS OF Kim Il Sung University have developed an effective forest fire extinguishing agent.

The agent is divided into the one for extinguishing a fire and that for inhibiting a fire. The extinguishing agent is made with a mixture of protein waste from foodstuff factories, dust from cement factories, a preservative and a foaming agent. And the inhibiting agent is made with a mixture of protein waste from foodstuff factories, dust from cement factories and a reagent.

The two agents should be mixed with water

## Forest Resources Increase



LOOKING AT THE verdant mountains in the country I, as one of forestry management officials, cannot help but think of the devoted effort our people made for forest restoration out of patriotism last year.

Previously lots of successes had been achieved in forest restoration, but those achieved last year are greater.

In the van of the struggle were officials and working people of Kangwon Province.

Despite the shortage

of everything and difficult conditions, they built a modern provincial tree nursery by their own efforts. The nursery consists of a sapling production district with plastic panel greenhouses, an outdoor cultivation ground, a light substrate production area, a circular cutting bed, a seed selecting and sowing place, a seedling display ground and other facilities, covering an area of scores of hectares. Thus the province laid a solid material and technical foundation for producing over twenty million saplings a year. The nursery is a land-saving and labour-saving one where saplings are produced by scientific, industrial and intensive methods.

My General Bureau of Forestry built a forestry equipment and materials factory specializing in the production of various sizes of plastic panels, sapling containers, sunshades and so on.

North Phyongan, South Phyongan, North Hwanghae

and other provinces also built land-saving and labour-saving tree nurseries to suit their own actual conditions.

Officials and working people of Jagang Province, in accordance with the characteristics of their mountainous locality, created forests of economic value, reserved forests and scenic forests in a rational way, actively introduced mixed forestry and agroforestry and concentrated efforts on planting trees in due season, thus finishing the province's task of tree planting in the optimum season and in a qualitative way.

Amidst collective zeal for emulation, North and South Hwanghae and North and South Phyongan provinces briskly conducted a drive to overtake one another, learn from each other and exchange experience, thus planting trees in a wider area than planned and in a qualitative way and thoroughly ensuring the rate of their rooting.

**A mass drive is on to plant trees.**



► Successes were made in the manuring and cultivation of the planted trees as well.

Officials and working people of the city of Rason made a detailed plan of manuring and cultivation for each season, and finished the planting of trees in optimum seasons while meeting the demands of technical regulations. And those of Kangdong County took proper measures for supplying water to cope with the unfavourable conditions in which high temperature and drought lasted long, thus protecting the planted trees from damage by natural factors. South Phyongan Province established a section management system and made sure that forest rangers and members of forest utilization workteams did the nutritional care of trees in a scientific and technical way.

As a result there appeared more than ten thousand hectares of forests across the country last year.

Afforestation was done thoroughly on the basis of science and technology. Researchers

of the forest of economic value institute of the academy of forestry under the Ministry of Land and Environment Protection, in close contact with a relevant unit, replaced a large number of Korean evodia trees with choice ones, expanded the area of forests of new species of pine-nut trees thrice by using a method of bud grafting and built by themselves a base for the production of natural sapling nutrition activator. And they finished the preparation for producing over one million saplings of choice species of chestnut trees whose per-hectare yield is high.

Officials of ministries and national organs took the lead in the struggle for forest restoration. Their active efforts helped create forests of new species of sallow thorn trees and widely spread good species of trees of great economic value in the Rimyongsu area in Samjiyon County, and provide a sci-tech guarantee for mass-producing saplings of new species of pine-nut trees by planting cuttings.

Meanwhile, efforts were vy-

ingly made in all parts of the country to reduce dependence on forests. The sectors of building materials, coal industry, railway, chemical industry and agriculture presented lots of innovative plans for reducing the consumption of timber as much as possible. The General Bureau of the Tanchon Area Mining Industry, in particular, used light-burned magnesia to mass-produce wall components, plywood, ceiling panels, roof panels, shutterings and other building parts. Technicians and workers of many other units, through a mass innovation campaign, made it possible to do production without using timber at all or lessen its consumption remarkably as compared with before.

Besides, public interest in the conservation of forests led to the invention and introduction of good methods for solving decisively the problem of fuel without relying on wood. The Rajin District Fuel Company, on the basis of its experience in making effective use of various waste to solve the problem of fuel, doubled the



**The production of saplings is on the increase at tree nurseries created to suit the actual conditions of the localities.**

► relevant production capacity as compared with before. The Sonbong District Fuel Company established a new brown coal muck-based briquet production process, thus making it possible to save thousands of cubic metres of timber, which otherwise would have been used as firewood. And combustion additive-based briquette production bases were created and coal gasification was realized in Jagang and Ryanggang provinces, Munchon and Phyongsong cities, Poptong, Kimhwa, Orang and Hongwon counties and many other cities and counties. This led to a sharp reduction in dependence on forests.

Thus last year witnessed many units' carrying out their plan of forest restoration, the fruit of the efforts of the whole country.

The Workers' Party of Korea's great plan of finishing the restoration of forests in ten years will be realized ahead of the schedule thanks to the people's devoted efforts.

*Kim Myong Chol,  
director of the  
General Bureau of Forestry,  
Ministry of Land and  
Environment Protection*



# Forest Designers



They discuss how to attain the goal of the forest restoration campaign.

SINCE ITS ESTABLISHMENT in December 1948 the Central Forest Design and Technology Institute has actively conducted the work of establishing a nationwide

forestry strategy by surveying all forest resources in the country. It also surveys and grasps the state of changes in forest resources so as to help take nationwide measures for the management of



▶ Then they conducted similar surveys and designing in Pyongyang, Kanggye, Hamhung, Chongjin, Hyesan and Sariwon, thus making it possible to do afforestation and conserve and use forests in a far-sighted way.

In its early days researchers of the institute conducted a survey of the country's forest resources in a short span of time, thus laying a firm foundation for mobilizing and using the forest resources including timber in a planned way during the building of a new Korea. This constitutes the beginning of forest survey, the basis of forestry management, in the country.

Later the researchers carried out the survey of forests in Ryanggang Province in contact with the provincial forest resources survey company, and thus mapped out the section-specific technical designs related to plantations, natural regeneration, cutting, prevention of forest fire and pest control.

▶

In 2015 the country declared a forest restoration campaign as a war to improve nature, and all the people turned out in the campaign to turn the mountains across the country into "gold mountains" and "treasure mountains." At that time the researchers were at a loss to know what to begin with in making the plan of the forest restoration. Ho Man Sok, director of the institute, said, "As we have a history and tradition of designing the afforestation of the country, we will never fail to produce an excellent design for covering the country with trees. To this end we have to make a concerted effort to carry out the survey and research for forest restoration."

The researchers developed an electronic map of the nature of the forests for the first time in the forestry sector as required by the era of science and technology, and made bold plans of forest resources survey and technical designing. On the basis of this

they completed a map of the master plan of the nationwide forest restoration campaign, and revised and supplemented South Hwanghae, North Hwanghae, Kangwon, South Phyongan and other provinces' plans of forest restoration campaign as required by the developing era, thus completing a phased plan of the nationwide forest restoration campaign on a high level.

In the course of this they computerized the compiling of statistics of the general survey of forest resources and the drawing of the map of the nature of the forests, built a database relating to the forestry sector and developed a forest resources management information system. While designing forest restoration, many of the researchers received state certificates of registration of science and technology, of introduction of sci-tech achievement, and of sci-tech invention.

Sim Yong Jin





The interior of a plastic panel greenhouse.



## Efforts Go into Afforestation

IT IS AN INVARIABLE policy of the DPRK government to actively conserve and manage forest resources and effectively develop and use them. The Mundok County Forest Management Station in South Phyongan Province has achieved not a few successes in the relevant undertaking.

It has conducted afforestation in a planned way and created forests of economic value such as timber forests, forests of oil-bearing trees and those for producing paper on natural woods and bare mountains which had been neglected as useless. And the mountains in the county have turned into habitats and homes of various birds and animals.

In June 2003 the State designated the Mundok area as a migratory bird sanctuary. The

species of birds surveyed there up to now number over 180, and scores of species of useful animals including roe deer, deer and hare live in the area.

In 2015 a State measure was taken to conduct an all-people forest restoration campaign. Since then the management station has more briskly been carrying on afforestation and the conservation and management of forests.

First of all, it is accelerating renovation of its tree nursery in earnest. In 2016 alone it spread 2 000-odd cubic metres of earth on the ground to complete the foundation work and realigned all fields in the tree nursery, turning them into standardized ones. In 2017 it constructed a vinyl sheet-covered sapling greenhouse covering an area of over 500 square metres and an outdoor acclimatization

section over 1 000 square metres in area. It also built a rearing base for *Trichogramma evanescens* Westwood, several outdoor cultivation grounds and three circular cutting beds on modern lines.

Last year the station built a plastic panel greenhouse capable of producing about 180 000 saplings a year, and completed a gravitational irrigation system from the Ryongnam Reservoir to the tree nursery and an integrated control system of sapling production. Besides, it built a general animal husbandry centre based on a reliable food production cycle of agriculture and animal husbandry, a workers' dormitory, and a comprehensive welfare service facility. It thus laid a firm material and technical foundation for

- ▶ producing over 5 million saplings a year by scientific, industrial and intensive methods.

On the basis of this, the station is conducting the sapling production and forest conservation and management in a far-sighted way. Previously it mainly produced saplings of forest trees, but now it is producing those of over ten sorts of fruit trees such as cherry, elaeagnus and black chokeberry, and of ornamental and garden trees including *Atropurpurea*, Korean box tree, lilac and winter jasmine.

Especially, it is putting much effort in cultivating oil peonies. As the fruit contains more than 20% of oil, its economic prospect is very good. Fruit can be gathered from the plant for more than 60 years once it is planted. Now the station annually produces over four million peony saplings to be planted in mountains in the county.

The already-planted trees can bear fruit from this year, and the station plans to sufficiently meet the edible oil demand of the county as a whole as well as its own.

Besides, it has created scores of hectares of pine-nut and chestnut forests, and properly conserves and manages them, thus profiting handsomely from them.

Ham Song Su, manager of the station, says, "It is our goal to afforest and landscape all mountains in the county and turn them into orchards in the future. We will discharge our responsibility for turning all mountains in the country into 'gold mountains' and 'treasure mountains.'"

Thanks to the State measures and the untiring efforts of the workers of the station the forest resources in the county are turning more favourable to its economic development and the local people's life.

*Kim Hyon Ju*



The production and management of saplings are under way in a far-sighted way.



# Planting Trees Personally

## Rustlings of Pyongyang Maple

ONE DAY IN JUNE 1953, THE LAST YEAR of the Fatherland Liberation War (1950–1953), President Kim Il Sung came to a stop beneath a maple while taking a stroll in the garden—he found many seeds fallen on the ground under the tree which he had not seen the previous day.

It was the season in which other trees were still covered with green foliage, but the tree already began to shed its seeds—it was quite uncommon. And it was commonplace that maples transplanted to an urban area from a mountain hardly turned red. However, the tree was tinged with different colours in harmony.

Gathering the seeds scattered on the ground the President gave them to an official, saying that they should be planted in a tree nursery to be propagated. Thinking that the workers of the tree nursery had never seen such seeds before, he cut a leafy branch of the tree and gave it to the official to take it together with the seeds.

The seeds sent by the President sprouted and grew well, spreading branches. And the trees were widely spread across the country, striking their root deep in the life of the people. Later, the President named it Pyongyang maple.

## Trees Planted in the Days of the War

One day in October 1952 when the war was at its height, President Kim Il Sung took a stroll for a long while on the vacant ground around the operations room of the Supreme Headquarters. The place was piled up with debris. He called the soldiers of the Bodyguard Company, and suggested that they plant trees on the ground. He tasked each of them with planting five trees.

All the soldiers merrily dug pits to plant trees. The President, too, planted five trees. While looking around the place, he said that they should hang their name plates on the trees they planted to take care of them. Then he hung his name plates on the trees he planted.

## Tree Planting and Patriotism

One day in July 1960 Kim Jong Il had a talk with the students who would soon graduate from the

higher middle school. At the talk he said as follows:

After the war two willows staunchly stood alive on the Pothong riverside though they had been in flame and torn during the war. Anyone who saw them felt a heart-rending pain. Meanwhile, they were proud of the trees as they had stood firmly in the flames of the war. Such a feeling is just patriotism. Those who have no love for the country cannot value every single tree and every blade of grass...

Look at those trees standing around the school ground. How laudable and beautiful they are. They are the trees we have sincerely taken care of. They have grown up into leafy trees together with us. When we visit our alma mater in the future after graduation and see those luxuriant trees in the school, we will think of the unforgettable school days and keenly feel the great love of the motherly country which brought us up. Not only today but also in the distant future we cannot see them casually because we planted and tended them and in the course of this we implanted patriotism deep in our mind and cultivated it. In the trees growing thickly in the mountains, streets and villages of the country, I see the mind of the new generation of the revolution growing in large numbers.

## The Most Ardent Patriotism

One April day in 1990 Chairman Kim Jong Il went to the April 15 Children's Botanical Garden to plant a memorial tree.

Seeing a pit dug by the officials in advance and a sapling put in it the Chairman said that trees should not be planted in this way, that originally one should dig a pit by oneself and plant a tree by oneself so that one could feel pride, and that only then was it of significance. He continued to say that when he planted trees on Rungna Islet in the past together with President Kim Il Sung he himself dug the pits and carried a sapling on a pole, and that today all the officials here should take shovels and plant trees together with the students and the members of the High-speed Youth Shock Brigade.

That day the Chairman said that they should plant even a single tree with sincerity so that it could grow well, adjusting the direction of a tree. He also said that soil should be put in carefully lest the tree roots should be hurt, and that the trees should be watered after planting. □

# Product of Growing Demand

A CAMPAIGN TO MAKE all goods perfect enough to be famous ones is in full swing in the Democratic People's Republic of Korea. A kind of cross-linked polyethylene insulated power cable (10kv) produced by the Pyongyang 326 Electric Wire Factory is gaining popularity. The cable has more merits than other similar kinds, so it is one of those goods the users have a great demand for.

The achievement is attributable to the efforts of the factory's technicians including Kang Jun Gil, head of the process laboratory of the technical development department, and process engineer So Kwang Chol.

In the past the factory was producing different kinds of cable, but they were not good enough to meet the requirement of the developing reality, thus failing to satisfy the demand of the users.

Ten years ago Kang was appointed head of the process laboratory. After looking around the cable workshop, he was deep in thought, because it was outdated. Immediately, he organized a consultative meeting with members of the laboratory and discussed about the modernization of the workshop.

First of all, they accelerated the work to make the cable production equipment CNC-based. There were many bottlenecks, but by pooling their wisdom, they managed to mod-

ernize relevant processes one by one. Skilled workers helped them.

All things went smooth, and the project reached the final stage. Then a skilled worker asked the technicians if it would be right without a product examination system now that the modernization of the equipment had been completed. He was right. Modernization did not mean just the quality of products. As the products were wrapped with plastic, it was impossible to verify eccentricity with eyes.

Now the technicians of the laboratory buckled down to the development of the eccentricity measuring system. At the same time they pushed ahead with the work to introduce devices for measuring cross-linking degree and eccentricity. They also developed different kinds of jigs

necessary for making measuring devices. In this way they solved all problems arising in modernizing production equipment and processes with their own efforts and technology, laying a solid foundation for ensuring the normalization of the power cable production, and the quality of the products.

In the field test the cross-linked polyethylene insulated power cable was recognized as an ideal product reaching international and national standards.

The cable received a DPRK certificate of recognized product in December 2017. The members of the laboratory are pooling their wisdom to develop new products, with a high sense of being technicians responsible for an important production sector in the country.

Sim Hyon Jin

The production process of cross-linked polyethylene insulated power cable.



An innovation is on in the production of backpacks for students.



## Makers of Pine Brand Backpacks

TODAY THE KOREAN people regard it as their pleasure and happiness to work and live for the future. Among them are workers of the Sinuiju Bag Factory in North Phyongan Province which exclusively produces *Pine* brand backpacks for students.

### Young Woman Living in Children's World

Myong Il Sim, a member of the designing section, often "complains" that both her family members and colleagues treat her as the youngest. However, her workmanship always arouses admiration from her colleagues. She has drawn over 20 of the 210-odd kinds of bags from the factory.

She always mixes herself with children understanding what pictures and toys they like; what colours they like most; what animations girls like and what pastimes boys like. When she is with them, she often thinks, "Can I always live in their world?"

### Frequent Visitor

Everybody is very busy going to work in the morning. But a young woman avidly reads a sci-tech book on the way from her dormitory to her workshop. Whenever they see her, her colleagues think what novel idea she is now thinking of.

The woman is So Ji Hyon, a member of the palette printing workteam. She has contrived valuable things, thus playing a great role in promoting the factory's

► technical development and increased production. Last year she invented a machine connecting the vinyl packing of backpacks and a trademark heater, and developed the embossed trademark of *Pine*, making a great contribution to the factory's annual production of 180 000 bags. When asked about the secret of her success, she always says, "I'm a frequent visitor to the factory's sci-tech learning space."

### Experienced "Cutter"

Sung Kyong Bok cuts all cloths and linings needed for backpack production. With her novel idea and skilful hand movement the girl swiftly cuts out a huge pile of cloth. Two years ago she was chosen as the head of the factory's art circle—it seems she naturally has an artistic vision. Today, under her guidance, the artistic ability of the workers has become good enough to put even professionals to shade, and the art circle of the factory is estimated to be the best in the province.

### "Eldest Sister" in the Factory

Sin Kwang Suk is the leader of Sewing Workteam No. 3 and an A-class skilled worker. As she has rich experience and high skills she is regarded as a treasure of the factory. At a national bag exhibition held in October last year the bag she made was selected as the best product.

*I should train all the needle workers into those possessed of the ability to do any work*—this is her goal. She has taken charge of over ten needle workers, and devotes her all to the improvement of their technical knowledge and skills. Every day she gives them a task, corrects their mistakes, and takes care of their life sincerely. So workers of the factory call her "eldest sister."

Kim Son Myong



A backpack sample room.



## Gold Spring Discovered

RECENTLY A RARE gold spring has been discovered in Hwapho-ri, Phyongsong. Rising from a spot hundreds metres away from the Taedong riverside, the water, it is believed, forms as a combination of the water of the river which passes through a placer gold layer beneath the Hwapho area and the underground water which flows along a crust fracture zone of Mt Jamo in the city of Phyongsong.

The water is the natural one of many mysterious features. According to its analysis it harmoniously and ideally contains gold (0.002 mg/L) unlike any other spring water, silver, and 28 kinds of minerals needed for human health and longevity including such essential microelements as selenium, fluorine, iron, manganese, zinc, copper and chrome in such a way as to be fit for hygienic safety.

As a mild hard water, its pH is 7.4 in the state of raw

water, corresponding with the pH in the blood of human body. Its association degree is 8, the smallest among those of the famous spring waters in Korea at present. It contains more bicarbonate than other spring waters, and its temperature is 12°C.

With no impure taste, it remains unchanged in its properties despite the passage of time. The daily yield of the water is hundreds of cubic metres, and it never dries.

A drink made of the spring water has a wonderfully good taste.

People say that it not only tastes better than others but also promotes urination, and that it is efficacious in treating digestive diseases such as indigestion, enterocolitis, gastritis, hepatitis and cholelithiasis, urinary diseases, conjunctivitis, allergic diseases and skin diseases including cosmetic poisoning, crystal rash and eczema.

Sim Chol Yong

# Light-burned Magnesia Products Grow Popular



THESE DAYS PRODUCTS made from light-burned magnesia by the Pyongyang Foam Prefab Factory are growing more and more popular. These products are known as green and energy-saving ones

so they are earning favour with the public. At the 33<sup>rd</sup> national sci-tech festival last year and some other exhibitions different building materials, furnishings and furniture articles from the factory were highly rated. Typi-

structure of a service establishment in the Wonsan-Kalma coastal tourist area project, the serviceable life of the shutterings made of light-burned magnesia was four or five times longer than the water-resistant board formwork. And the wall boards, ornamental panels and insulation boards showed no change in different humidity and temperature levels while having multi-functional natural effects against noise, fire and erosion, so they enjoyed great favour at the construction site.

Here goes a story about how the idea of insulation board of light-burned magnesia was conceived. One day a researcher of the factory who was studying building materials happened to see a street kiosk on fire. The fire engine rushed in haste but the counter made of thermal sheets was burnt off, because the foamed plastic which is the material of the sheets was burnt off in an instant.

Shocked at the sight, the researcher got down to the job of studying a fire-proof insulation board and finally developed a board with the attachment of light-burned magnesia.

As the products got better and better reputation, the amount of order grew and grew. And their demand was diverse and varied. Surpassing the range of building materials, furnishings and furniture, they demanded all kinds of products needed for development of the national economy. At first, the researchers began ▶



Light-burned magnesia goods are under production.

because they emit anions, and are fire- and moisture-proof, highly strong, hard, and highly resistant to noise and erosion. As it absorbs carbonic acid gas in the air, the application of light-burned magnesia products in dwellings is as good as having several trees inside the home.

The Pyongyang Foam Prefab Factory was not the first to develop such products. And yet its products of the kind are lighter and varied compared with those from other factories,

cal of them were shutterings, doors, computer tables, dining tables and kitchen utensils. A huge number of people were surprised to see the smart and light things, feeling and lifting them with their own hands. They admired that they can endure in temperatures of nearly 1 000 degrees centigrade and are three times stronger than concrete.

A typical product is light-burned magnesia shutterings. According to the verification by the builders who erected the

► with the task of solving the problem of avoiding deformation and susceptibility to water, which are the bottleneck in using the light-burned magnesia, but now their scope of research expanded considerably. They had to make a design of each product according to their properties and learn a proper rate of materials to be mixed while finding suitable auxiliary materials for filling.

While developing new kinds of products which satisfy all technical indices, the factory established advanced technologies and production processes fed with light-burned magnesia. Now it is manufacturing whatever it wants to meet the demands.

Ho Kang Jin, a researcher who has played the main role in developing products of light-

burned magnesia, says, "Light-burned magnesia can be an alternative to wood, iron, porcelain, and what else. The prospect is all the better because our country has world-famous magnesite deposits and they are of a high grade. Things made of light-burned magnesia are finding their way into people's life rapidly."

Kim Chol Hyon



Some of the goods.

# Talented Young Scientists



Researchers of the Biodiversity Institute of the State Academy of Sciences received UNESCO MAB Programme Young Scientist Awards.

**I**N JULY LAST YEAR THERE was held the 30<sup>th</sup> Session of the International Co-ordinating Council of the Man and the Biosphere Programme in Indonesia. In recognition of the biodiversity of the Mt Kumgang area, the possibility of sustainable development of the area and its social and cultural values, the session unanimously decided to inscribe the area on the list of global biosphere reserves. The meeting also conferred the UNESCO MAB Young Scientist Award on Ri Kum Hyok and Ri Chung Song, researchers of the Biodiversity Institute of the State Academy of Sciences, who presented valuable papers conducive to the protection and sustainable use of Korea's biodiversity.

It was four years ago that young scientists of the institute began to study the fauna and flora of Mt Kumgang in real earnest. But in fact they started making necessary preparations a dozen years ago. At that time they were engaged in the scientific study of Mt Kuwol's fauna and flora, so it was difficult for the institute to do similar study in Mt Kumgang at the same time with its own force. Besides, rich investigation data on the ecological environment of the mountain were not available until that time. The institute, however, organized and dispatched an advance group of several researchers to the mountain to survey its fauna and flora in

detail. The advance party spent nearly a year pushing their way through dense forests to conduct field investigation, and thus surveyed in detail the regional and spot-specific distribution of animals and plants on the verge of extinction and rare ones in the mountain, and laid a scientific foundation for the protection of them. Later it turned out quite helpful for the field survey and study in the Mt Kumgang area.

On the basis of the data the researchers, including head Yun Chol Nam of the institute, section chief Ri Kum Hyok, Ri Chung Song, Choe Kum Hyok and Kim Song Hui, surveyed the mountain and pushed ahead with the relevant study.

Abounding in species of plants because of its topographical, climatic and physiographical conditions and diversity, the mountain is an unusual region where special plants are concentrated. It also has not a few kinds of rare animals. But it was not an easy job to collect and analyse a huge amount of data not only on biodiversity but also on the actual state of socio-economic and cultural affairs in the region. Besides, the region is several times wider than other reserves as it covers Kosong, Kumgang and Thongchon counties of Kangwon Province, and they lacked research force, equipment and fund.

Yun encouraged his staff, saying, "Don't think ours is merely a job of surveying the re-

sources of fauna and flora. It is a patriotic undertaking for protecting the precious assets of the country, increasing its natural resources and turning it into a socialist paradise that is beautiful and good to live in. Let us dedicate our clear conscience to the patriotic work."

They continued with the difficult field survey, whether they were appreciated or not, in order to add more brilliance to Mt Kumgang, a celebrated one of Korea. They would set up a tent on the icy ground to camp in without lighting up a campfire lest a forest fire should break out. Sometimes they kept lying prone on the ground enduring the bitter cold all day long so as to photograph the habitats of nervous migratory birds and their modes of life. And they had to trek through mountains and fields carrying scores of kilograms of equipment and materials with them. Sometimes they got seriously injured tumbling down a slope while clambering up a cliff.

At last they successfully carried out the several-year-long field survey and research. During the period they ascertained the extent of the biosphere reserve in the region and the function of the reserve, and confirmed that the region fully meets the standard for entry into the list of global biosphere reserves.

All the researchers are in their twenties or thirties.

*Sim Chol Yong*

# For Underground Resources Development

SOME YEARS AGO THE *Korea Today* editorial board introduced the researchers of the Mining Environment Protection Laboratory of the Environment Engineering Institute under the State Academy of Sciences, who had developed a 3D underground information system, a foundation for realizing the space subject modelling in coal and ore mines.

They have since conducted the research to further improve the information system, putting emphasis on the standardization of the program.

They strove to collect all the underground information into a database, which was not easy as the country has complicated soil conditions and different geological structures. So they secured one by one the data for synthesizing and analysing the stratum structures of all mining districts by using the data of many areas.

Though they failed in some complicated and difficult calculations, they never gave up.

**Strenuous research is under way to improve the information system.**



To confirm even a single piece of data, researcher Kim Yun Hak went to look round mines with various structures many times, conducting a geological survey to ensure its correctness. Researcher Hong Song Chol made a tool with which to enrich and renew the database.

They kept conducting the research for building the database, completing the control system, and finding the function for automatically setting up a ventilation system on the basis of a planned model pit and realizing simulation.

At last they completed the standardization of the 3D underground information system in keeping with the country's geological structures, and the system won favour with the February 8 Jiktong Youth Coal Mine.

Previously several process engineers spent much time to make even a design for a single pit because they had to conduct a field survey and make sector-specific designs. But the 3DUIS

was very useful as it could reflect the physical and geometric properties of pits, and made it possible to draw sector-specific designs in a short time.

Kim Kwang Ho, a process engineer of the coal mine, says, "Thanks to the scientists, we are able to explore the underground without going into it, and a prospect for increasing coal production twice has been opened."

The system helps make and save management information for coal mine's management activities in combination with the space information and conduct easily and rationally the scientific and technical simulation of the conveying system, ventilation system and mining process which are necessary for the production process in coal mine.

Now lots of coal mines are benefiting from the system. Ensuring scientific production and management it enables them to increase coal production.

Over the last two years, the researchers have introduced the system in over 30 coal mines. Last year the mining process designing support program they had developed was awarded a certificate of excellent IT product.

Dr. Ro Chol Jun, head of the laboratory, says, "With regard to the underground resources development field we presented 3DUIS Clear Air 3.02, conducive for digitizing the openings network and modelling coal or mineral veins, putting the underground resources management on a scientific basis and increasing mineral production. In the future, we'll develop exchanges and cooperation with other countries in this field."

*Kim Il Bong*

# High Aim to Beat World

WHAT WAS MOST appealing of the international journal *Plasmonics* published in June 2017 was a thesis titled *Interparticle Coupling Effects of Two Quantum Dots System on the Transport Properties of a Single Plasmon*.

As it designed a new model for the development of single photon transistor, the main focus of research in the circle of quantum information science, and proved it theoretically, the thesis attracted the attention of the academic world.

The first author of the thesis is Dr. and Associate Prof. Kim Nam Chol, a researcher of the photoelectron institute, Physics Faculty, Kim Il Sung University. In his mid-40s he is a man of few words, and is fond of thinking.

In his childhood, he was very clever and competitive. Not only in his primary and secondary school days but also his university and graduate school days, he was well known as a talented student. In particular, his outstanding faculties of inquiry and application always made him an object of admiration among all his associates. So many teachers expected his future research achievements.

But he never wrote even a thesis in his university and graduate school days.

A house with a weak foundation cannot last long, and only a firm scientific foundation makes

it possible to conquer a higher peak of science, so I should keep studying hard to consolidate my spring-board of science—this was just his assertion and target.

In his leisure hours, he visited teachers to have a heated discussion on the latest science, and spent nights reading original texts of science. Once he spent all his birthday night at the laboratory.

Even after graduating from the postgraduate school, he never stopped his study and thinking. Three years later, in March 2010, he presented his first thesis *Surface Plasmons Amplification in Single Ag Nanoring*.

As soon as it was published, it was appreciated by the scientific world as it had opened up a new path in quantum information science, and it was introduced in *Optics Express* in August 2010.

Later he, breaking up the ready-made idea that even a thesis is difficult to write in a year,

presented over 2.5 theses a year on average. Thus he contributed 18 scientific and technical theses to such international scientific magazines as *Applied Physics B*, *Applied Physics Letters*, *Nano-*



technology and *Scientific Report* for seven years.

In 2017 alone, he contributed five theses including *Plasmonic Effect on the Population Dynamics and the Optical Response in a Hybrid V-Type Three-Level Quantum Dot-Metallic Nanoparticle Nanosystem and Switching Freely between Superluminal and Subluminal Light Propagation in a Monolayer MoS<sub>2</sub> Nanoresonator* to the SCI-level scientific magazines, causing a great sensation.

A few years ago, he developed a cryptocommunication device which was the exclusive property of a few countries. At that time, Nam Chol said, "I think a high aim makes it possible to achieve a great thing. What is important is a determination and will to advance to beat the world."

As chief of the quantum optics laboratory he is now devoting all his wisdom and effort to attaining his higher goal of overtaking the world.

*Kim Hyon Ju*

# Using New Teaching Methods



A discussion on teaching aids.



Problems are solved by study groups.

Students work hard and live in a proper manner as the heroes did.



**TODAY THE HERO**  
Sukchon Senior Middle School in Sukchon County is recognized as a school of excellent academic performance not only in the county but also in South Phyongan Province.

When I visited the school, An Hong Nam, headmaster of the school, said, "Almost all teachers of my school are holders of certificates of registered new teaching method. And the certificates of invented experimental apparatus and teaching aid number over one hundred."

From among the teaching plans put on his desk he picked up those of two teachers, who received the title of October 8 Model Teacher last year, and showed them to me. I could see their efforts to find out new teaching methods in their plans where they promptly wrote down the ▶

- problems arising during lessons. In one teacher's plan I saw many pieces of paper inserted between its leaves. The following was written on them.

In the lesson given in the form of questions and answers the students of high ability understood the heart of each question and gave correct answers. But those of low ability looked bored, giving no answers; they did not solve properly even the problems relating to the content of the lesson. When I gave solutions to the problems toward the end of the lesson, many copied them on their notebooks. The reason was that I failed to take into account the different levels

of the students. When a teacher gives the solutions to the problems, students think they are all correct, and do not have any doubts about them. As a result, they did not try to solve the problems with their own effort, and the students have nothing left in their memory.

The teacher should not get the students to study, but encourage them to learn by themselves.

So he conceived a new teaching method and, accordingly, he added new contents to the teaching plan. In order to give all students of different levels plenty of time for thinking he reduced the time of his explanation in the lesson by having them do enough preparations of it, and saw to it that each study group

solved general problems through discussion.

And he had those students, who solved the problems satisfactorily, explain to other students, and made the students express their opinions on the points in question. As a result, students of low ability had more opportunities to express their opinions, and their potentiality fully developed. This fired all students' zeal for study. He also evaluated their performance individually or by study group, and organized meetings in which excellent students talked about their experience, thus enhancing the students' enthusiasm for emulation.

Such experience was widely introduced in the school as a whole, which led to the invention of many new teaching methods that were reflected in the teaching plan of each subject in every new school year. In applying the heuristic method of teaching the school not only attached importance to the eloquence of the teachers, but also mainly appraised the number of fresh and unique teaching methods combined with visual aids including various multimedia. This made some teachers, who had clung to their own experience alone, conscious of their deficiencies, and encouraged them to strive to find out new teaching methods.

In the course of this, attention was focused on how to give

questions suited to the levels of students, how to raise the point in question and what forms and methods should be employed in discussion so as to have a good influence upon the students' mental state, and teaching plans were mapped out and carried out accordingly. This helped improve the average ability of the students and further fired their zeal for study.

The school enlarged the extent of examination questions, and invented and set questions which can be applied in practice in connection with the reality, not by means of learning by heart. As a result the students came to know about their own real ability and redoubled their efforts, which was followed by the improvement of their ability.

Last year many students graduated from the school with honours and entered schools of higher grade. And in the estimation of the ability of the students of senior middle schools in the county the students of the Sukchon Senior Middle School were ranked in the top places.

The headmaster said, "The beautiful future is guaranteed by the effort of teachers. In the future, too, we will deeply imprint in our mind the mission we assume before the era, and further improve the teaching contents and methods so as to better the quality of education."

Pak Yong Il



Tuesday, December 19, 2017 Fine

### **Panjjakbyol**

THE CHANGJON PRIMARY SCHOOL IN Central District, Pyongyang, the first to be reconstructed in September 1954 after the end of the Korean war, was newly built in a modern way along with the construction of Changjon Street six years ago. The diary of Kim Myong Sim, a teacher of the school, tells the change of the school was not confined to its outward appearance alone.

Sunday, February 5, 2017 Snowy

#### **For several-minute amusement**

Though it is Sunday many teachers came to the school for the purpose of developing new and superior teaching methods to enhance the students' cognitive faculty.

I made a game program helpful to finding out correct answers to problems during a math lesson. Gone are the days when we were satisfied with writing on the blackboard the solutions to math problems.

I racked my brains to make the game interesting lest the students should find it boring. It took five hours to make the two- or three-minute game. I did not have the day off, but I felt no fatigue at the thought of the students who would be happy to play it.

They agreed to my opinion that the students' comprehension will be further improved if they were given dictation in accordance with the textbook for every grade. For a long time I discussed with them about a knotty problem I faced in teaching the students and a solution to the problem. And I came back with *Soksemuibyol*, a study support program aimed at improving students' ability for mental arithmetic.

I wish my effort will make it possible to improve the students' ability.

Tuesday, April 10, 2018 Rainy

#### **Is this today's diary or yesterday's?**

The introduction of integrated examination with the help of the computer has brought about an improvement in the method of examination and the appraisal. Only when students learn knowledge in a theoretical way can they have good marks.

Unlike the previous examination method whereby they wrote answers to limited questions on paper, the present one demands much effort and wisdom



A new teaching method helps students improve their power of cognition.

- ▶ for making questions as a wide range of application problems should be dealt with by the computer. Before making questions I imagined the scenes of students feeling happy or disappointed to see their marks which will be presented simultaneously with the end of an exam. So I made painstaking efforts to make questions in such a way as to judge their abilities impartially without knowing the passage of time.

Now it is two o'clock in the morning—a new day. Is this today's diary or yesterday's? Anyway I take pride in my work because the future of the country is represented first in the students' academic records.

Thursday, July 3, 2018 Fine

#### **Electronic blackboard and virtual classroom**

Some time ago I went to the Pyongyang Teachers Training College, where the educational conditions and environment have been completely renovated and modern educational techniques has been invented and introduced. I learned a lot of things there.

So I installed an electronic blackboard in my classroom. Today I began to give lessons using it. It helps save much effort put formerly in preparing teaching aids and making multimedia, and its visual effect is better.

In the afternoon I went to the venue of the 2<sup>nd</sup> virtual program exhibition, and the program I presented there was considered good.

To turn our classroom into a virtual one I myself thought a lot and built virtual data. Other classes, too, are going to introduce a virtual reality in their classrooms. Innovations are made in the educational work day by day. The headmaster's suggestion that we carry on the school's tradition of creating a nationwide model in education and edification of students makes me more keenly aware of my duty as an educator.

*Rim Ok*



## **Worthwhile**

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# Under Free Medical Care



IT IS ONLY FIVE YEARS SINCE OUR hospital was established. In those years, we have reduced to zero the death rate of children with serious abiosis that causes diseases such as children's diarrhoea and pneumonia—it is said that the death rate of such children is high across the world.

Recently we have saved children with malformed hearts by operating on them 27 days after their birth. At first, we were strange to operating on newborn babies. But we advanced step by step through repeated failures for the sake of children who are regarded as the kings of the country. Thus, in 2017, we operated on 28 newborn babies and increased the revival rate to 90%. Last year we saved more newborn babies by operation.

We now perform over 300 heart operations, and treat more than 3 000 children including schoolchildren every year, and that at the state expense. Examination, treatment and hospitalization are all done free of charge.

All other hospitals provide free medical care, but our hospital specializes in treating women and children who are under special protection in the country. Bright smiles on the faces of children are the best "doctor's fee" for us.

Foreign medical workers often visit our hospital and comment that the health system of the country is superior.

Young patients, who were taken to our hospital in a critical condition, leave it with bright smiles on their faces accompanied by their parents. Seeing

them, I meditate on the words *free medical care*.

Modern hospitals named after the word *people* have been built in every corner of our country, and doctors go to see patients. This cannot be experienced elsewhere in the world. In our socialist country a whole hospital, an entire village and all people dedicate themselves to restoring an ordinary patient.

Wondering whether our people fully understand how happy they are, I found myself implanting the words *socialist free medical care* deeper in my mind.

The universal free medical care system began to be enforced at the state expense in our country on January 1, 1953. Many years have passed since then, and the system is still in force benefiting every citizen.

Even when the country was undergoing hardships, the people kept benefiting from free medical care, and that in better environment and conditions.

Our hospital, for example, has an intelligent play room for little children, and classrooms for schoolchildren to keep getting schooling during hospitalization.

In addition, those who are looking after their hospitalized children are treated if they are diagnosed with diseases they have never known themselves.

At present, the department of neurosurgery is conducting research on cerebral operation for newborn babies, which will make it possible to save babies with cerebral diseases. And we have made achievements in the treatment of patients suffering from tolerance paralysis, a pressing issue across the world.

The more successes we achieve, the more benefits our children will get from the free medical care.

Whenever I repeat the words *free medical care*, I take unusual pride in being a medical worker in the best socialist country.

Ri Kwang Chon, vice-director  
in charge of technical affairs of  
the Okryu Children's Hospital

# Songyo Koryo Medicine Factory

THE SONGYO KORYO MEDICINE FACTORY in Pyongyang is not so large, but is well known among the people as it produces varieties of high-quality medicines. Especially, the antithrombotic nutritive pills from the factory are winning favour with the public as they are highly efficacious in treatment and prevention of cerebral apoplexy and cerebral thrombosis.

The factory set it as a main goal to make compact Koryo medicines on a high level of scientific basis, and encouraged all its employees to strive to attain the goal. It focused its efforts on enhancing the role of competent pharmacists and skilled workers and improving the technical knowledge and skills of the workers through scientific and technical study. And it conducted a campaign to learn from one another, overtake others and exchange experience in conformity with its actual conditions, and encouraged the workers to compete fiercely among themselves to increase the production of different Koryo medicines.

The general manager and other officials of the factory went among the workers to collect their creative opinions. On the basis of this, they actively introduced valuable technical innovations and inventions in a pill making machine and a drying machine.

Kim Myong Guk, an officer in charge of equip-

ment, developed and introduced in production an ultrafine powder mill, the first stage for making compact Koryo medicines, thus making it possible to improve the efficacy of the medicines while saving much electricity and labour. And Kim Hyang, a worker of Workteam No. 2, developed a Koryo medicines mixer; she received a certificate of registered sci-tech achievement.

In the course of this the factory achieved successes in the work of making the production lines modern, dust-free and germ-free, and thus remarkably consolidated its material and technical foundations along with the considerable improvement of the workers' technical knowledge and skills.

Based on these successes it is conducting researches to develop highly efficacious Koryo medicines convenient to eat using various medicinal herbs and materials richly available in the country.

Hyon To Wan, general manager of the factory, says, "The successes we have achieved convince us again that our own techniques and strength are the best and that we can do anything when we believe in ourselves. In the future, too, we will further increase the production of more efficacious Koryo medicines for the promotion of people's health by dint of our own strength."

Pak Thae Ho



Medicines are packaged.



# STAR OF GYMNASTICS

## Rosy Future

Ri was born into an ordinary office worker's family in Tanchon, South Hamgyong Province. His childhood was uncommon. Since he started to walk he often jumped to hang on a window sill or other places higher than his stature. In his kindergarten days he would do a cartwheel and so on to the surprise of teachers. Especially, he loved hanging on horizontal bar.

The following happened in Ri's days at the then Chukjon Primary School.

One day Jo Hun, an instructor of the Mangyongdae Schoolchildren's Palace, visited his school and saw him hanging on

an horizontal bar. Though the boy must be somewhat exhausted he persistently strove not to fall from the bar performing movements of his own style in which the instructor understood the boy's zeal for exercise, and his clear head and harmonious kinesthetic sensation. This is how the boy went to the palace with the instructor and became a member of its apparatus gymnastics circle.

After three years of training Ri was recognized as the most promising player of the circle and transferred to the April 25 Sports Club. His inborn talent drew the attention of coaches of the sports club and experts, and he demonstrated his ability to

the full in domestic games. In such a short period he displayed his wonderful ability for his age. Later, he became a national champion, and was recognized as a promising reserve player.

## Fly Higher

When he was 18, Ri began to take part in international competitions as a member of the national team. Coach Song Sun Bong, who led him to his first victory in an international competition, says, "Ri was fully prepared in all aspects. I was struck by his fast development. It seemed that he was born to do apparatus gymnastics. Seeing him perfecting movements of his own style to challenge the world I had confidence in him."

Ri fully demonstrated his ability in the world gymnastics circle as well. In particular, he won first place at the 4<sup>th</sup> Artistic Gymnastics Asian Champion-

ships. He also took first place in the event of vaulting horse at the 5<sup>th</sup> Artistic Gymnastics Asian Championships held in 2012. At that time experts and audience saw his movements with their eyes wide open. His first attempt featured a dismount with a rotation in a 180 degree arc in an outstretched position after executing a forward triple somersault with an L-shaped figure in the air—it was a high-grade movement they had never seen. His second attempt struck the spectators with greater wonder. Many people know that the second attempt in the event is a repeat of the first attempt in general. But Ri performed a more difficult movement than the first one—it was a dismount with a 360 degree sideway rotation after executing a backward twice somersault with a quick rotation with the knees bent. In the rings event, too, he beat his Chinese rival, the favourite for

the championship, thus snatching two gold medals.

The Federation Internationale Gymnastique officially designated the two movements he performed in February 2013 and in February 2015 as "Ri Se Gwang movement 1" and "Ri Se Gwang movement 2."

Ri won medals at the 31<sup>st</sup> Olympic Games, and at the 45<sup>th</sup> and 46<sup>th</sup> FIG World Artistic Gymnastics Championships. And he won another gold medal at the 48<sup>th</sup> FIG World Artistic Gymnastics Championships held last year. On the night of the day he won gold medal he wrote in his diary, "This medal belongs to the country which has brought me up. I am really happy. I will train harder for the country that made me stand on the platform of honour."

He is still engrossed in training true to his pledge.

Pak Yong Il

**Ri SE GWANG, A DPRK Labour Hero and People's Athlete, is an Olympic gold medallist and a thrice world champion. He has won 11 gold medals in international competitions, and now is aiming for the 12<sup>th</sup>.**

## National Intangible Cultural Heritage (28)

# Koryo Medicinal Dietary Therapy

**A**MONG THE KORYO medical therapies created by the Korean people is Koryo medicinal dietary therapy. This therapy is the one whereby one can keep one's health and prevent diseases by regularly eating Koryo medicinal foodstuffs.

How long the history of the therapy is can be known through a story of *yakbap* (glutinous rice mixed with sugar, dates, chestnuts, pine nuts, sesame oil, etc.) from the history book *Samgukyusa* (History of the Three Kingdoms), the oldest of its kind in Korea, and the data on hundreds of

dietary therapies described in the Koryo medical classics *Hyangyakjipsongbang* published in 1433, *Uibangryuchwi* (Manual of Traditional Medicine of Korea) published in 1477, and *Tonguibogam* (Encyclopaedia of Traditional Medicine of Korea) published in 1613.

Many kinds of edible materials were used for the therapy including insam, lance asiabell, pine nut, ginger, sea tangle, terrapin, carp, honey and chicken. And other Koryo medicinal materials were also added.

Those Koryo medicinal foodstuffs were mainly taken

in such forms as cooked rice, gruel, soup, broth, tea, wine or roast. Typical examples are *yakbap*, medicinal porridge made with pine nut, mussel, adzuki beans, fish or apricot stone, *tangogi* soup, broth made of insam and chicken, loach or carp, thick broth made of insam and chicken, rabbit or snakehead, *jonggwaa* (a kind of confectionery made of broad bellflower roots or insam), *yakgwaa* (cake made with wheat flour, oil and honey), *tasik* (patterned savoury cake) and *yakju* (medicinal wine).

Today it is commonplace ▶

for any of families in the country to use such Koryo medicinal foodstuffs to prevent and treat diseases. For example, when they have got cold, they usually eat spring onion root porridge. Here is how to make it: Put rice in the pot and boil it. When it is almost done, add sliced spring onion root and a little of sugar. Take the hot porridge once a day and sweat. This is more efficacious than taking aspirin.

Such Koryo medicinal foodstuffs are easy to make and good to eat. The Korean ancestors, through their long experience, knew well about the ingredients and functions of the materials, and used them in accordance with the treatment principle of Koryo medicine.

The Koryo medicinal dietary therapy was inscribed on the list of national intangible cultural heritage.

*Rim Ok*





## Motive Force for Victory



A tactical discussion is under way.



Training focuses on helping players improve teamwork.

I WENT TO THE PYONGYANG Indoor Stadium to see a women's basketball match, one of the events of the National Inter-Provincial Games 2018. The event was for basketball circles of juvenile sports schools in the country.

The match was the final between the Pyongyang municipal team and the South Hamgyong provincial team, and spectators' opinions were different with regard to which team would win because the teams took first and second places respectively at the similar event of the 55<sup>th</sup> national juvenile sports schools' games.

At that time the latter beat the former by one point. This time, however, the Pyongyang municipal team beat the South Hamgyong provincial team by seven points. Members of the winning team embraced one another, sharing the joy of victory with the spectators who raised cheers.

There I could meet Kim Ok Sun, coach of the team and basketball instructor of the Central District Juvenile Sports School. She participated in the game with her circle members. The following is what she told me.

Until several years ago the basketball circle of the school won basketball events of national games. Then it began to lag behind. Around that time Ok Sun was appointed as an instructor of the school. While

analysing a match of the circle members, she noticed that passing between them was not done properly because they often tried to be the first to score. It was a serious problem in view of the current trend of basketball whereby success depended on team spirit as the game turned into a speedy and intense one.

She, feeling a great sense of responsibility, tried to find out a solution to the problem. She made effort to not only teach the circle members basic techniques but also improve their physical preparedness and develop their team spirit and perseverance. In the daytime she guided them in their training, and at night she went to see renowned coaches to learn from their experience, studied videos of domestic and international matches and the data on the analysis of the matches, and collected relevant data.

Her effort bore fruit. She solved the problem of teamwork of the circle members and making them act in concert with one another. This led to their wins in matches. □





# Believe in Yourself

(Continued from the last issue)

## Different Eyes

**S**ENIOR COACH KANG Ryong Un of the reserve women's football team of the April 25 Sports Club came down to Hamhung with a determination to select finally two or three players from South Hamgyong Province whose abilities he had observed for some time.

Kang was an unusually tenacious man who never failed to take reserve players he regarded as promising whatever happened.

He had had eyes on Kim Kyong Hwa since the year before, who was well known in Sinpho. But when he heard that Coach Ro Jae Ho of the reserve women's football team of the Pyongyang Sports Club had taken her to his club, Kang felt quite sorry.

With an unusual power of observation and good foresight and judgment, he had noticed that Kyong Hwa would become an excellent footballer in future. But as she was still young and too short he had decided to wait and see for a year. He had never thought that he could be foisted.

With regret Kang had come down to see matches between football circles of middle schools in the province. Then he was quite surprised to notice a short girl in a match between the

teams from the city of Sinpho and Sinhung County. He judged it was just Kyong Hwa.

Kang approached Om Myong Chol who was there as instructor of the Sinpho team. After introducing himself as coach of the reserve women's football team of the April 25 Sports Club, Kang asked, "Isn't that small girl of your team Kim Kyong Hwa?"

"Yes, you're right," Om replied.

"It's a surprise. I hear that she was selected and transferred to the Pyongyang Sports Club some time ago," Kang wondered.

"Right, but she was rejected for the reason that she is short," Om explained.

"I see," Kang nodded with a laugh.

"You see Kyong Hwa as an object of selection, don't you?" Om asked looking inquiringly at Kang.

"No, I have just tried to learn her abilities to decide if she is promising."

"She is all right in every respect except her short stature. But I hope she will grow tall. Then, she will be really a promising player," Om said.

Kang nodded wishing Om's team win in the match.

Om's team won the match 2-0 probably because of Kyong Hwa's conspicuous activity, and thus was qualified to go on to the next

knockout competition.

Having checked into Hamhung Hotel Kang was restless. He decided to meet Kyong Hwa this time without fail, and came out at the thought that he might see her in the early evening.

Just at the time members of the Sinpho team were chatting outside after supper. It was before dark, and Kang soon recognized Kyong Hwa, the smallest of them. So he directly approached her.

"You're Kyong Hwa, aren't you?" Kang asked.

"Yes. What's up?" Kyong Hwa asked in surprise.

"Nothing much. I'm the coach of the reserve women's football team of the April 25 Sports Club. I want to meet you because I like you. Don't you want to join my sports club?" Kang asked.

Without any reply Kyong Hwa looked steadily at Kang.

"What's wrong with you?" Kang asked. "Why don't you reply?"

"I'm afraid it would be impossible," Kyong Hwa replied.

"What do you mean?"

"I mean I'm not eligible," replied Kyong Hwa.

"Why?" asked Kang.

"I was rejected by the Pyongyang Sports Club because I am short. They said they would wait and see for a year or two. Do you think a short player like me can

► succeed, Mr Coach?" Kyong Hwa doubted.

"Nothing is impossible in the world. I assure you that though small you will be able to succeed if you are ideologically and technically prepared," Kang encouraged.

"Do you mean you can select me when I am this much short?" Kyong Hwa asked.

"Of course," Kang exclaimed.

"They said like you when I was selected the other day. I want to go, but I'm afraid of being rejected again."

"I see. Wait without telling anybody else yet," Kang promised.

The final match took place between the teams from Hamhung and Sinpho.

After seeing the match Kang decided to select Ri Kum Suk and Kim Kyong Hwa as reserve players. He met Kum Suk first, had a talk with her and measured her physical and technical conditions. For her age of 15 the girl was tall and quick enough in movement to become a reserve woman footballer. Kang could settle the issue of transferring her in a week without any great difficulty.

The next day Kang, on arrival at Sinpho Railway Station, went directly to the city's juvenile sports school. But unexpectedly, vice principal Kang Ho Song and instructor Om Myong Chol disagreed with him. The vice principal said that the Pyongyang Sports Club had already promised to take Kyong Hwa, and the instructor stressed that it was premature for him to take her now as she was still young and too short. The coach, however, would never give up.

"It would be late then, Mr Instructor. There is a time for the team of reserve players as well. Kyong Hwa should be guided by an able coach in a favourable condition at her present age. Only then will she be able to do her bit," Ryong Un entreated.

"Mr Coach, it is a different case with Kyong Hwa. Perhaps she will not meet the requirements of the coaches there because of her physical shortcomings. Then the result would be obvious. So I disagree. We should still wait and see," Om said.

"Alright. It cannot be helped if you keep insisting like that. See you again," Ryong Un concluded.

Then Om, with a feeling of uneasiness, went directly to the city people's committee and the city sports guidance committee to tell them about the fact and asked them to support his idea.

The chairman of the sports guidance committee supported his position.

Full of self-confidence Om returned to the juvenile sports school and phoned to the hall of culture to tell Kyong Hwa's father about his and the sports guidance committee's idea regarding the issue of her joining the April 25 Sports Club.

Back home in the evening Kyong Hwa's father Kim Kyong Chol found Ryong Un having a talk with his mother in an amicable atmosphere.

Seeing Kyong Chol, Ryong Un was quite glad and stood up to greet him first.

"I'm a football coach of the April 25 Sports Club," Ryong Un introduced himself.

Shaking hands, Kyong Chol said, "Instructor Om Myong Chol phoned me in the afternoon. Frankly speaking, Mr Coach, my

daughter is not good enough to be selected to go to your sports club. I think you'd better give her up lest she should disappoint you."

"You mean you are afraid she is young and small?" the coach asked.

"Yes."

"Why do you think she is ineligible? I don't think so. She has her unusual forte," the coach stressed.

Kyong Chol, however, gave no reply.

Now Ryong Un went to the city people's committee and the city sports guidance committee. But they all rejected his proposal, only saying that they should wait and see.

It took him another week until he left the city, taking Kyong Hwa with him. Thus Kyong Hwa got on the train to Pyongyang for the second time in late June 1993.

At Hamhung Railway Station Ri Kum Suk joined them on the train.

Sitting beside Kyong Hwa, Kum Suk was glad to see her, holding her hand tightly.

"Oh, we go together, don't we?" Kum Suk asked.

"Yes. You, too, go to Pyongyang?" Kyong Hwa also asked.

"I think I was selected simply because I'm tall. So I know I will train hard at the sports club," Kum Suk said.

Ryong Un interrupted, "You're right. It's no more than the beginning for you. You should train hard so as to become aces. I want you to emulate each other as reserve players joining the club on the same day and at the same time."

(To be continued)

# Women's Profile



Kim Hui Ok.

**TODAY THE KOREAN women are making a great contribution to social development and people's well-being. Among them are Kim Hui Ok, manager of the Rangnang District Fuel Company; Yun Yong Hui, director of the Pharmacological Institute of the Academy of Medical Science; and Choe Hyang Sim, teacher of Pyongyang University of Computer Science.**

## Inventor Manager

Kim Hui Ok is called inventor manager by the residents of the district. The call reflects their gratitude to the manager for her efforts to fully provide them with fuel.

Hui Ok, however, is never content with what she has done. Her mind is always filled with worry—she feels as if she were failing to do her duty toward the people. So she always thinks how to satisfy the residents' increasing demand for fuel. She has developed a lot of things including a lean coal burning additive, a closed coal mill, an overhead crane, an ignitable bri-

quet moulding machine, an automatic packaging machine and a control panel of the ignitable briquet moulding process.

Her inventions earned her over 20 certificates of invention and of registration of sci-tech achievement from different sci-tech festivals, exhibitions and shows.

In 2014 she won the February 16 Sci-tech Prize. And at the 16<sup>th</sup> national invention exhibition held last year she won a gold medal for the fourth time for her invention and introduction of a scraper carrier.

A mother of two daughters, she is always enterprising and optimistic. Thanks to her sincere efforts her company, which had only a small factory ten-odd years ago, now has two ignitable briquet factories based on automatic production systems and over ten modern petroleum and gas supply stores.

She is still striving to fully solve the problem of fuel for the residents.

## With Sincerity

Dr and Associate Professor Yun Yong Hui has been engaged in pharmacological research for over 30 years.

In her childhood Yun had a dream of becoming a medical worker. So, after graduating from the then Pyongyang University of Medicine, she became a researcher of the Pharmacological Institute as she wished.

At that time she set it as her lifetime research task to put Koryo medicine production on an extract-oriented, standard and

scientific basis.

It was her opinion that nothing is more laudable and worthwhile than the job of working with sincerity for the well-being of the people and the promotion of their health.

It, however, was not all plain sailing. She experienced repeated failures and manifold difficulties. Once she worked herself night after night for many days striving to make a new machine. One day she forgot even the birthday of her beloved daughter, engrossed in research in the laboratory until the next morning.

Through over 20 years of sincere efforts she succeeded in making the production of Koryo medicines extract-oriented, and went on to make nano medicines by developing a supercritical nanoparticle-making machine.

An anticancer injection, *samhyanguhwangchongsim* capsule and bioactive insam solution, which she developed, are favourably commented upon by the users.

She is now engrossed in research into Koryo medicines for children's diseases.

When asked about her view of life, she says, "Live for the

► sake of the people, and with sincerity at that."

## Straight Course

Choe Hyang Sim, teacher of Pyongyang University of Computer Science, is very busy nowadays. Choe thinks that those who feel most pressed for time are teachers as they have to give lectures counting every minute. She is busy also because her old teachers, alumni, disciples and relatives and even acquaintances of hers have been phoning and visiting her since she received a doctorate some time ago.

She looks after her parents-in-law with her as well as a two-year-old daughter, so she is busy keeping her family while giving lectures. But she manages to conduct research to the admiration of all people.

A woman she had gotten acquainted with on the way to work asked her how she could develop a mobile phone operation system they were using while working as a teacher. Her alumni also envy her as she was the first to become a doctor.

It was in her university days that she began to approach IT problems arising in the reality. Once she visited the Pyongyang Lighting Apparatus Factory where she learned that the production of light bulbs was impeded because the temperature control of a sintering furnace was not automatic. Then she strove to solve the problem, and thus developed a temperature control system for the furnace.

The system turned out successful: The temperature of the furnace was controlled automatically, and the quality of the products improved. Officials and workers of the factory were

beside themselves with joy shaking her hands. And overnight she could hardly get asleep for joy on creating something for the first time.

After beginning to work as a teacher at the university after graduation she still remembered the workers who had been glad to see her invention. She further delved into the IT field as she knew that IT reaches every corner of social life in the present era.

She worked day and night: She gave lectures in the daytime, and conducted research at night. In the course of this she

training for landing on a fixed point. The system is designed to help parachutists practise controlling parachutes to suit any conditions including different altitudes, distances and wind velocities that may happen in reality. Now parachutists are very pleased to be able to do landing exercise on the ground regardless of weather conditions. This equipment based on the system was highly rated at several rounds of the national sports sci-tech achievements exhibition. And she gives interesting lectures by introducing her experience in the development of



Choe Hyang Sim  
(second right).

invented an operation system for mobile phones and palmtops.

The system was favourably commented upon by people as it is easy to use. All users of mobile phones and palmtops at home are benefiting from her invention.

In her girlhood she already obtained many certificates of registered sci-tech achievement, of invention and of software property.

And she married an IT expert whose assistance encouraged her to work more enthusiastically after marriage.

Not long ago she developed a system of simulated parachuting

such systems, and the students highly appreciate them.

Now she is striving to pioneer a new subject for training talents capable of devising algorithms and designing programs. At the age of 31 this year, the woman doctor says, "A moment of hesitation makes one lag far behind others in the IT field whose updating cycle is fast. I think I've hit the straight course now. Without letup I will strive to be number one at all times. I'm confident that I will be able to make greater achievements when I combine teaching and research."

Rim Ok



## Patriotic Family

A RECREATION PARTY opened at a site of the Sepho Tableland reclamation project one day in early May 2017 when birds were singing happily and the air was shimmering with the spring warmth. All the participants were filled with pleasure probably because they knew they had almost finished their task of the project in a short span. Pun Hui, called *Oriole* by her fellows in the brigade working for the project, sang a folk song causing quite a merry and cheerful atmosphere. Then came a performance of hand feats by tractor driver Yong Chol who was a famous model worker. Whenever a programme was over, a thunderous applause erupted along with cheering voices.

The last programme was a chorus by the family of Ri Jong Nam from Neighbourhood Unit No. 68, Namchon-dong, Kae-chon, South Phyongan Province. They had visited the site several times over the past years bringing a lot of building materials and other aid goods with them.

Now they began to sing a song they had used to do whenever they were there, striking a chord with all the brigade members.

*Never could we deem  
ourselves patriotic  
If we don't plant even a tree  
To help make mountains  
greener in our land.  
Let's dedicate our sweat*

*to our land  
And make each moment  
of our life  
Worthwhile for the prosperity  
of our country.*

The familiar voices of the singers reminded the brigade members of what had happened two months before.

An unexpected thing occurred at a site where there was going on a battle of soil transport in March 2017. Jong Nam who was there giving a helping hand fell down unconscious. He was rushed to a hospital immediately. He was diagnosed with cirrhosis of the liver.

Through a three days' intensive treatment the patient came to. He felt dizzy with pains in all parts of his body, but he struggled to the construction site lest he should be any trouble for the project. Seeing him endeavour to give what little he could to the country rather than seeking his own comfort or family welfare, the members of the brigade were all tearfully moved.

Over thirty years passed along with his patriotic devotion. Though his hair turned grey as he turned well over 60, there was no change in his life for the sake of the country and the people. If any, it is that the ranks of his family have grown. His wife, three pretty daughters and their husbands have joined him, and in March 2018

his son Ri Tae Il who learned at Kim Il Sung University and his wife followed suit.

The family visited the construction sites of the Huichon Power Station, Samjiyon County and the Wonsan-Kalma coastal tourist area. So far, they have donated a lot of money, building materials, a good deal of meat and foodstuffs to major construction projects.

The state highly appreciated their unceremonious dedication and honoured Jong Nam with the title of Man of Socialist Patriotic Merit. To top their honour, Supreme Leader Kim Jong Un expressed his thanks to them in October 2018.

Jong Nam often says to his children, "Efforts for the country are just those for yourselves and your family. We should continue to follow the way of patriotic effort for the prosperity of the country and the wellbeing of the people."

As if to prove the value of his words the singing of his children reverberated through the sky along with the thunderous applause of the brigade members.

*Never could you feel proud  
of your life  
If you fail to play the  
leading role  
To help the country go  
through the hard time.*

*Kim Hyon Ju*

# Changing Scenery of Taedong River

THE TAEDONG RIVER IS ONE OF THE five longest rivers of Korea. Its length is over 250 miles, and it flows through the centre of Pyongyang. The name of the river comes from the fact that it is fed by hundreds of large and small tributaries. Its clear water meandering round Juam Hill, Moran Hill, Mansu Hill, Nam Hill, Mangyong Hill and other high and low hills looks like an unfolded roll of silk. And Rungna, Yanggak, Ssuk, Turu, Tudan, Pyokji and Konyu islets on the river look like gems set in the silk.

A tale goes that Kim Hwang Won, a famous poet of Koryo, tried to describe the scenery of the river in poetry but broke his brush as he failed to select words good enough to describe the beauty.

In the past, however, the river was a byname of calamities. Whenever it rained the river overflowed, inflicting damage on local inhabitants. A relevant legend goes as follows.

Once upon a time the river was in spate. When

a carp was going dead out of the river, a man saved it by washing it cleanly and putting it back into the river. This enabled him to meet the Dragon King one day. The man asked the king to prevent the river from overflowing. The next day the king had a folding screen-like rock wall rise on one side of the river. Since then, it is said, the river never overflowed.

It is nothing but an old story that reflected the people's desire.

Their desire came true only after Korea's liberation from the Japanese imperialists' military occupation in August 1945, and thus a new history of the river started.

The Taedong River improvement project was launched: the endless river was embanked, and the embankment was covered with a retaining granite wall followed by the construction of promenades along the embankments. And measures were taken to make comprehensive use of the water of the river: there were built South Phyongan provincial and ▶



► Kiyang irrigation systems and the Kaechon-Lake Thaesong Waterway along with the construction of the Mirim, Ponghwa and West Sea barrages and the Taedonggang and Namgang power stations, all adding to the scenery of the river. This also made it possible to prevent any flood damage and ensure good power generation and transport development.

The ecological environment of the river has also got better, and thus it attracts different birds including spoonbill, *Egretta eulophotes* (Swinhoe) and wild duck. And the number of fishes inhabiting the river has increased, including carp, goldfish, catfish, mandarin fish, eel and minnow. So have the kinds of trees along the banks, including willow, dawn redwood and magnolia.

Around the river were built the Okryu Restaurant, the Grand People's Study House, the East Pyongyang Grand Theatre, the Central Youth Hall and so on, all based on Korean style of architecture.

On large and small islets on the river were erected the May Day Stadium, the Yanggakdo International Hotel, the Pyongyang International Cinema House and so on.

In recent years the Rungna Dolphinarium and Rungna Water Park and the Sci-Tech Complex have been built on Rungna Islet and Ssuk Islet on the river respectively, along with the construction of modern structures such as the Munsu Water Park, the Ryugyong Health Complex, the People's Open-Air Ice Rink, a roller-skating ground, the Pyongyang Baby Home, the Pyongyang Orphanage and the Pyongyang Old People's Home on the best places of the riverside.

On one side of the river has risen the Pyongyang Taedonggang Fish Restaurant resembling a cruising ship. It is a service centre similar to the Okryu Restaurant typical of the capital city. The fish restaurant offers dishes made with live sturgeon and Ryongjong fish. Relishing the dishes you can feast ►

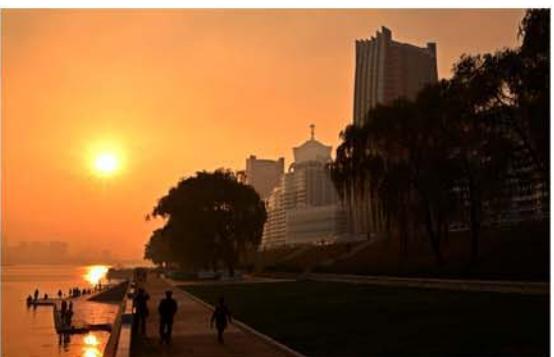
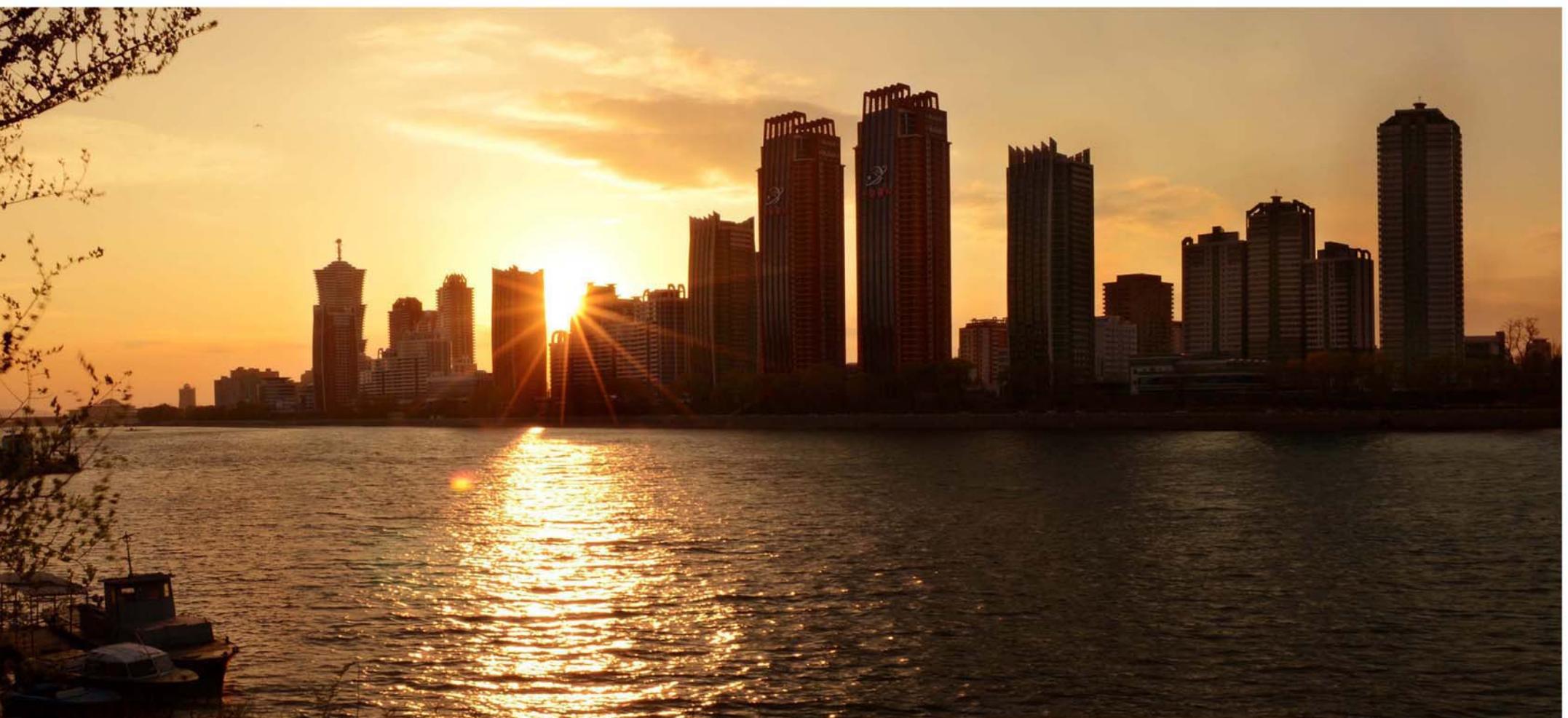
► your eyes on the scenery of Chongnyu Cliff.

Spectacular is the night view of the riverside—the red torch of the Tower of the Juche Idea, skyscrapers standing in rows on Changjon and Mirae Scientists streets, the Okryu Bridge, the Chongnyu Bridge and the Rungna Bridge decorated with illuminations, the floating restaurant *Taedonggang* and the general-service ship *Mujigae*. The view seems to be an embroidery of illuminated Pyongyang at night.

It is not without reason that Korean sportspersons say that they could exalt the honour of the country in international competitions encouraged by their memory of the days when they had trained breathing in the fresh air along the Taedong riverside every morning.

Therefore, all the Korean people express their love for the river by calling it *motherly river* or *the people's river*. And they see in the daily improving scenery of the river the future of their country getting younger and their nation getting more prosperous.

*Rim Ok*



# White Herons Fly over Land of Sangwon

FLIGHTS OF WHITE herons fly over the Sangwon Stream curving round the Sangwon Cement Complex, and thickly wooded mountains are scattered with flocks of the birds. This is the scene of a photo taken by Kim Yong Ha, a photographer of the complex in October last year.

It was 30 years ago that a cement factory was built and inaugurated in the area called Sinha-ri which means that it's often foggy there.

At first, the workers of the factory planted fast growing trees around it and on mountains in its vicinity and tended them. Later they felt a lack of something while observing the trees growing year after year.

Afterwards, they set a concrete plan to create different

forests in different districts and began to plant fruit trees and good species of trees around the factory and on the surrounding mountains. Now over 5 000 fruit trees of scores of species and tens of thousands of other trees grow in the compound of the complex and around it.

The local people relish the sight of not only a forest of aromatic acacia trees but also that of a chestnut tree forest where squirrels play about and that of deer moving about in a thick forest.

A few years ago, they built up a dam on the lower Sangwon Stream to make water flow even in a dry season.

The compound of the factory is full of fruit aroma, the mountains are covered with thick forests and the Sangwon Stream is

teeming with fishes—all are as beautiful as a picture.

Some time ago, white herons began to settle in the area. Now the number of the birds has increased remarkably. At about 5 p.m., tens of white herons appear on the Sangwon Stream. They stroll there until dusk when they go to sleep on the branches of scores of years-old poplar trees in the compound before flying somewhere early in the next morning. Then they come back in the afternoon.

Ri Kyong Chol, a member of a literary circle of the complex, wrote a poem describing the white herons flying to their workplace.

*Is it an excellent location as birds have settled there?  
Is it an excellent location as its environment is clean?  
Is it an excellent location as we have secured happiness there  
With one mind and purpose for the sake of the country.*

Kim Hyon Ju



# Country Rich in Mineral Water

KOREA THAT HAS LONG BEEN KNOWN AS

a beautiful country is rich in mineral water.

There are more than 170 mineral springs in Korea, and water from over 110 of them is mineral water. What is characteristic of the distribution of mineral water in the country is that there is no regional one-sidedness. The mineral water resources are widely distributed in all parts of the country including not only Pyongyang and every province but also mountainous districts, flat areas, inland zones and coastal areas.

In Pyongyang alone there are Okryu, Samma, Kobangsan, Konguk, Songbuk and many other mineral waters. All provinces and regions are also rich in mineral water resources like Yangdok and Rangnim mineral waters in South Phyongan Province, Paegun and Ryongchon mineral waters in North Phyongan Province, Kobo and Chongun mineral waters in Jagang Province and Chojong Mineral Water in South Hwanghae Province.

The mineral waters in the country contain a large amount of minerals needed by an organic body, and various gas constituents, organic matters, microelements and radioactive substances, and have unique tastes and special effects on the treatment of diseases.

The Okryu Mineral Water near the Okryu Bridge on the bank of the picturesque Taedong River contains a large amount of chloride ion, ion bicarbonate, calcium ion, sodium ion and so on. As it regulates gastric secretion, it is good for the treatment of chronic gastritis and other chronic digestive diseases, diabetes and anemia.

The Kumgok Mineral Water in Hoeyang County, Kangwon Province, is very good for the treatment of skin diseases. It contains 0.3 grams of minerals per litre, and about 9 mg of sulfur per litre. When you drink or apply it to your skin, it makes your skin elastic and soft. As it helps accelerate the process of cornification, regeneration of epidermal layers and blood circulation of the skin, it is widely used for the treatment of chronic skin diseases like eczema, impetigo and psoriasis.

The Okhodong Mineral Water in Sonchon County, North Phyongan Province is well known as it is good for health and the treatment of diseases. The locality is called Okho-dong as it is surrounded with picturesque hills resembling a jade pot. It has three springs whose mineral waters are called Sin, Jung and Ku, respectively.

Their ingredients are all similar, and belong to simple carbonated spring rich in free carbonic acid gas, hydrogen carbonate and iron. They are widely used for the treatment of diseases like chronic gastritis, a gastric and duodenal ulcer, chronic enterocolitis, nephrolithiasis and chronic pyelonephritis.

Besides, there are world-famous mineral wa-

ters in Korea—Kangso Mineral Water in Yaksu-ri, Kangso District, Nampho; Myohyangsan Mineral Water in Hyangam-ri, Hyangsan County, North Phyongan Province; Chojong Mineral Water in Chojong-ri, Unchon County, South Hwanghae Province; and Sambang Mineral Water in Sambang-ri, Sepho County, Kangwon Province.

The country has been long conducting a nationwide undertaking to use the mineral water resources for the people's well-being and the treatment of diseases. And many sanatoriums and rest homes were built near mineral springs across the country.

Typical of them is Kangso Mineral Water. Before the nation's liberation (August 15, 1945) from the Japanese imperialists' military occupation, the mineral water and its locality were used as a means of moneymaking and a pleasure resort by the exploiting classes, but at present, a modern sanatorium and a bottled mineral water factory can be seen in the place.

Now the mineral water has reached a world standard for its efficacy for longevity and medical treatment and for its unique taste, and the locality has changed into a sanatorium area and recreation ground for the working people.

Today the mineral waters in Korea are making a special contribution to the health and longevity of the working people.

Choe Sol Mi



# Mt Kumgang

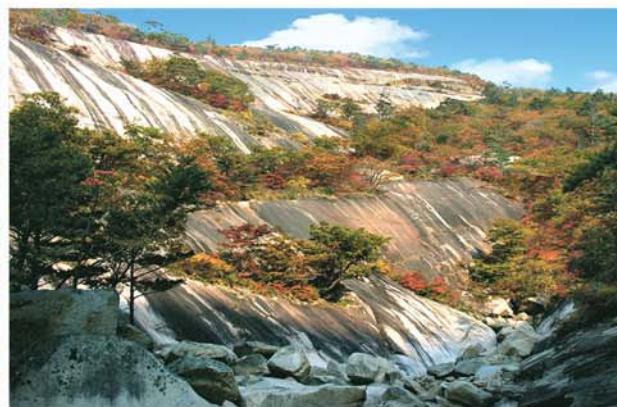
## (1)

MOUNT KUMGANG SOARS IN THE northern Thaebaek Mountains in the middle of the East Sea coast of Korea. It extends for 60 km from south to north and 40 km from east to west, covering a total area of 530 sq km. For its multifarious, magnificent and graceful natural landscape, the mountain is long known as one of the six celebrated mountains and one of the eight scenic spots in Korea.

The mountain is as beautiful as a picture with a wonderful harmony of 12 000 high peaks, mysterious rocks, gigantic rocky cliffs, deep valleys, numerous pools and ponds, crystal-clear streams meandering precipices and rocks, lots of waterfalls, diversified fauna and flora and thick woods. The mountain boasts beauties of mountain, valley, plateau, bird's eye view, lake, sea and coast, so it presents a harmony of all beauties of nature. Hence the mountain has long been called Phungak, Kaegol, Sangak, Sonsan and Pongnae.

In spring, when various kinds of flowers are in full bloom and emit fragrance, it is called Kumgang (Diamond Mountain). In summer its high peaks and sheer cliffs are enveloped by drifting clouds and in verdure full of bird songs and roaring sounds of cascading waterfalls, hence its name Pongnae.

Fantastic rocks in Mt Kumgang.



When the beautiful autumnal tints cover the whole mountain with clear streams, it goes by the name of Phungak. When it presents a snowscape with snowflakes and ice pillars visible everywhere Kaegol is given in winter. As the mountain constantly changes in appearance by season, time and weather, there is an old saying, "Stones do various tricks, water does all sorts of cute things and trees are also laudable, so it seems that all superb scenic beauties have gathered in the mountain."

From primitive times people lived in the area of Mt Kumgang surrounded by river, sea and field. They often passed high peaks of the Thaebaek Mountains to conquer nature, thus developing Mt Kumgang. From the end of the seventh century ▶

► it was widely known at home and abroad. When Buddhism began to spread in Korea, the mountain counted as one of the Buddhist "holy places" in the East. The mountain was more widely known to the public as it became a place of pilgrimage for many Buddhist monks and believers from across the country.

The mountain has numerous Buddhist temples including Yujom, Phyohun, Jangan, Singye and Jongyang, and other cultural assets such as Buddhist sculptures, pagodas, monuments and stupas. Countless are legendary tales, poems, songs, and pictures relating to the mountain.

From the late 16<sup>th</sup> century progressive scholars started studying the mountain's history, geography and culture. So there came into being the

phrase "Don't talk about the beauty of mountains and waters before seeing Mt Kumgang." And other scenic mountains across the country are nicknamed after the mountain, including Haeso (Hwanghae) Kumgang (Mt Jangsu), Hamgyong Kumgang (Mt Chilbo), Uiju Kumgang (Mt Soksung) and Tongnae Kumgang (Mt Kumjong). And a foreign poet said that he had no more desire even though he died if he saw Mt Kumgang of Korea once.

Characterized by diversified beauties of nature and special landscapes by section, the mountain is mainly divided into Outer Kumgang, Inner Kumgang and Sea Kumgang, and they are subdivided into scores of districts and *dong* (ravines and peaks).

*(To be continued)*

## Myongnimdabbu, a Hundred-year-old Veteran Commander

**M**YONGNIMDABBU (67–179) WAS A minister of Koguryo, who distinguished himself in the fights against the foreign invaders. In 166 he became the prime minister of Koguryo and held the prerogative of supreme command over all armed forces.

In the fight against the invading enemy troops in 172, he fully demonstrated his mettle and spirit as a military man. In November 172 large enemy forces intruded into Koguryo. The king consulted the ministers for measures to deliver the country out of the crisis. Looking out over the vassals, the king asked, "Large enemy forces are invading our country and which do you think will be better, assuming the offensive or the defensive?" Many of his ministers were whispering and nodding in consultation among themselves.

Now a minister rose and gave his opinion, "Your Majesty, I think the enemy is making little of us relying on their large numbers. So I suggest meeting and driving them back. If we avoid fighting, the enemy will regard us as cowards and frequently make inroads into our country in the future. In addition, we have the advantage of steep mountains and narrow paths, so ten thousand enemy troops won't be able to get over our barrier guarded by just one man. So I think it the best policy to check them by sending out our troops." To his words the king responded with a dry cough. The other ministers guessed that his opinion failed to gain the favour of the king.

At this moment, Myongnimdabbu opened his mouth. He said in a low but forceful voice, "Your Majesty, I consider it inadvisable to go out and engage the enemy head on." "Why?" the king asked in a consenting tone. Myongnimdabbu answered, "The enemy's land is vast and it has a large population. They are coming a long way in an assault on us with a huge force. So there's no breaking the brunt of their attack. It is often the case in war that the superior force attacks and the inferior one defends."

With this, he explained his plan. The enemy was invading Koguryo with the design of all-out surprise attack. As the enemy had many experiences in winning by surprise attack they thought

it was more advantageous to capture and subdue the king of Koguryo with a vast territory to make the other walled cities, fortresses and feudal states surrender for themselves.

In addition, they calculated that the problem of provisions for their army would be easily solved because now, just after the harvest time, the fields would be studded all over with stacks of grain crops. Therefore, it was as good as the enemy had left their fate to the strategy of surprise attack, and this meant that Koguryo's key to victory lay in frustrating this strategy of the enemy. Now the best course was to employ the empty-earth and holding-out-the-fortresses tactics, surrounding them with deep moats, building strong defences and leaving not a grain of cereals in the fields, making the hungry and tired enemy troops retreat helplessly. Then, large armed forces would be sent out to chase and smash the enemy. The king and all the ministers gave their approval to this plan of Myongnimdabbu.

Immediately the king took necessary measures and ordered many army units to assault the enemy's logistic units and cut off their supply line. As a result, the commanders and soldiers of the enemy who had intruded deep into Koguryo had no other choice but to retreat, hungry and frozen with cold. As planned, Myongnimdabbu started in hot chase of the routed enemy. It was important in this battle to wipe out the enemy to the last man to cut down their strength never to try to make a comeback. He formed a pursuit unit with thousands of elite cavalrymen and led the van of the battle to chase the running enemy, ordering his soldiers never to let the invaders escape alive and to show the mettle of the Koguryo people.

At the time, he was aged 106. About this a history book says that the enemy forces suffered a crushing defeat, so that not even one horse went back home. The empty-earth and holding-out-the-fortresses tactics employed by Myongnimdabbu in this battle in combination with the exterminatory war method were widely used later by many famous patriotic army commanders of Korea in the battles to defend their country against foreign invaders. □

## To Usher in Heyday of Peace, Prosperity and Reunification

**"L**E T US USHER IN A HEYDAY OF peace, prosperity and reunification of the Korean peninsula by thoroughly implementing the historic north-south declarations!"—this is a slogan Supreme Leader Kim Jong Un put forward in his New Year Address this year.

The slogan reflects the desire of the Korean nation for peace and reunification.

Last year was a stirring year which witnessed a dramatic change unprecedented in the history of national division spanning over 70 years.

With a determination to usher in an era of national reconciliation, peace and prosperity by putting an end to the abnormal state on the Korean peninsula which had suffered a constant war crisis, the DPRK took proactive and bold measures to effect a great turn in north-south relations from the outset of last year.

Three rounds of inter-Korean summit meetings and talks were held in the year amid great expectations and interest of peoples at home and abroad, and thus the north-south relations entered a completely new stage.

The Panmunjom Declaration, the September Pyongyang Joint Declaration and the north-south agreement in the military field, which were adopted by reflecting the firm resolve and will to usher in an era of peace in which war exists no longer on the Korean peninsula, are of great significance as a virtual nonaggression declaration in which north and south have committed themselves to terminating fratricidal war based on force of arms.

While sportspersons of north and south displayed the wisdom and strength of the nation by jointly entering international competitions, artistes came and went to Pyongyang and Seoul to fire the enthusiasm for national reconciliation and reunification.

North and south took the significant first step towards common prosperity of the nation by promoting cooperation projects in various fields including railways, road, forestry and public health while resolutely overcoming manifold obstacles and difficulties.

The surprising changes which took place in inter-Korean relations convinced all the fellow countrymen that when they join minds and efforts, they can turn the Korean peninsula into the true home of the nation, which is the most peaceful and will prosper forever.

Now the Korean people have turned out as one to make greater strides in their efforts to boost inter-Korean relations, achieve peace and prosperity and reunify the country on the basis of the priceless achievements they made last year which was wonderfully adorned with unprecedented events.

It is the steadfast will of the DPRK to remove military hostility between north and south and make the Korean peninsula a durable and lasting peace zone.

Being conscious that the master of peace on the Korean peninsula is the Korean nation, all the fellow countrymen turned out in the struggle to check and frustrate all the moves that wreck peace and incite military tension on the peninsula.

The DPRK put forward practical measures aimed at expanding and developing inter-Korean cooperation and exchanges in an all-round way so that national reconciliation and unity can be consolidated and all the fellow countrymen can practically benefit from improved north-south relations.

For the present, it expressed its willingness to resume the Kaesong Industrial Park and Mt Kumgang tourism without any precondition and in return for nothing, in consideration of the hard conditions of businesspersons of the south side who had advanced into the Kaesong Industrial Park and the desire of southern compatriots who are eager to visit the nation's celebrated mountain.

This presupposes no toleration of the interference and intervention of outside forces who stand in the way of national reconciliation, unity and reunification with the design to subordinate inter-Korean relations to their tastes and interests.

If north and south join minds in the spirit of By Our Nation Itself, they will surely usher in a heyday of peace, prosperity and reunification on the Korean peninsula.

Kim Il Bong

# Demonstration of Ardent Patriotic Spirit

THE KOREAN PEOPLE'S history of national liberation struggle is replete with events in which they fully demonstrated their firm spirit of independence, indomitable spirit and ardent patriotic spirit.

On March 1, 1919 they undauntedly launched an uprising against the Japanese imperialists, shouting, "Long live the independence of Korea!" and "Japanese and Japanese troops, get out!" This is recorded in the history of Korea as the March First Popular Uprising, a nationwide anti-Japanese patriotic struggle of the Korean people to take back their country from the Japanese imperialists and achieve sovereign independence.

Early in the last century the Japanese imperialists occupied Korea militarily and enforced a medieval oppressive rule, turning the whole land of Korea into a giant prison and a hell on earth. This made the Korean people give vent to their pent-up resentment and anger.

The popular uprising started with a large-scale anti-Japanese demonstration in Pyongyang on March 1, 1919, sweeping through Seoul and almost all other parts of the country and spreading even to the Korean compatriots in Manchuria, Shanghai, the Maritime Territory of Siberia and Hawaii, and thus developed into a nationwide patriotic resistance.

Most of the participants in the uprising were peasants. While demonstrating against the Japanese imperialists, they refused to supply cereals and firewood to Japanese and strug-

gled against tax payment. At that time the working class in the country was still young, but they walked out and fought bravely in the van of demonstrations and riots, displaying their stubbornness, militancy and united force in anti-imperialist struggle. Meanwhile, youths and students fervently called for people of all walks of life to turn out for the anti-Japanese national liberation struggle, and demonstrated and struck, dealing a fatal blow to the Japanese imperialists' educational policy for colonial slavery. Artisans and shopkeepers, too, joined the patriotic struggles closing doors or breaking off transactions with Japanese.

The uprising was also joined by petty officials and clerks working in government offices and organs of the Japanese imperialists. In three months from its start to late May over two million Koreans of all strata joined the anti-Japanese uprising, and there were more than 3 200 demonstrations and riots across the country till December of the year.

Taken aback by the Korean people's struggle for national dignity and sovereignty the Japanese imperialists launched brutal repression. On the first day of the uprising they urgently dispatched countless military police and policemen and mobilized a fully-armed garrison to suppress the uprising. The Japanese army stationed in Korea also joined the crackdown, and the elite troops from Japan proper were sent to the country.

The Japanese imperialists,

brandishing bayonets and iron hooks recklessly, attacked the peaceful demonstrators, killing, arresting and detaining them. The demonstrators, however, did not yield but fought courageously against Japanese troops and policemen. Though empty-handed, they threw stones towards the enemy. When the first rank fell down, the other ranks behind would advance without letup. When a girl student had her right arm that held the national flag cut off by an enemy sword, she took the flag in her left hand, and when she was unable to move any further having had her left arm cut off, she continued to step forward shouting, "Long live the independence of Korea!" making the Japanese imperialist soldiers and policemen shudder.

Even Shinobu, a hired scholar of the Japanese imperialists, said in astonishment, "The Japanese military policemen were dead set on cruel crackdown that one could not see with one's eyes open....The atrocity of the Japanese policemen was beyond

description; they bayoneted the demonstrators to death or killed them by hanging."

The Japanese imperialists, however, could not depress the Korean people's intention to achieve independence. The uprising that started in four provinces on March 1 expanded to 12 provinces by March 11, and a similar struggle occurred in North Chungchong Province on March 19. Thus it spread across 13 provinces at last. The flame of the anti-Japanese resistance swept through 229 of the total 232 administrative units, and

overseas Korean residential quarters. The rapid spread of the uprising turned the whole country into an arena of the anti-Japanese resistance for national salvation against the Japanese imperialists' colonial rule. And the struggle grew more intense: The peaceful demonstration for independence gradually began to turn violent.

The uprising demonstrated the Korean people's ardent patriotic spirit and revolutionary ardour, dealt a telling blow to the Japanese imperialists' colonial rule and heightened the na-

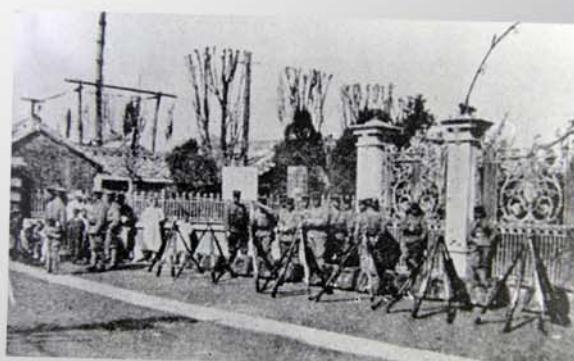
tional consciousness of the people. The patriotic desire of the forerunners who shouted, "Long live the independence of Korea!" while shedding blood was realized by the anti-Japanese revolutionary struggle led by Kim Il Sung.

Today the Korean people have turned out for the struggle to build a prosperous and powerful reunified country displaying their firm spirit of independence, indomitable spirit and ardent patriotic spirit.

Rim Hye Gyong



The Japanese imperialists brutally oppressed and killed the participants in the March First Popular Uprising.



# Japan's Old Crime of Sexual Slavery Revealed (2)

## Nature of Sexual Slavery for Japanese Army

**S**LAVE MEANS THE MAIN producer in a slave-owning society who, as property of another person, had no right or means of production and was treated like an animal.

The sexual slaves subordinate to the Japanese army were in the status of the slaves that could be seen in ancient Greece and Rome, nay, they were in a more deplorable state. The only difference, if any, was that they were forced to give their sexual "service" alone.

The sexual slaves for the Japanese army were, in essence, slaves forced into sexual acts. They were not those who, as the Japanese politicians describe, consoled troops on the front mentally and psychologically.

According to the testimony of the survivors of the sexual slavery for the Japanese army, the sexual slaves were mercilessly denied not only their dignity as women but also their elementary human rights and even the right to existence. Women in the "comfort stations" for the Japanese army were each subjected to sexual cruelty by scores of Japanese soldiers a day. They were quite often whipped or their lips and bodies were tattooed, but they could not help but bear the maltreatment. And

they had nowhere to appeal even if they were killed for their refusal to satisfy the sexual needs.

When there was revealed the fact that during the Soviet-German war a Nazi "doctor" tattooed an eagle and other things on the body of a Chinese girl staying in the Soviet Union, the international community indignantly condemned it as a great insult to the dignity of women, and made an issue of the matter.

The sufferings and shame the Korean sexual slaves underwent were incomparably worse. While eating a rice ball and pickled radish for a meal they had to undergo physical and mental agony. If they tried to flee or disobeyed, they were subjected to harsh punishments or killed.

When they were defeated on August 15, 1945 the Japanese imperialists massacred or left the sexual slaves to death in battlefields or uninhabited regions. They never left a single one of the slaves intact to be alive. For example, they killed scores of Korean sexual slaves on one of the South Sea Islands, and they used hand grenades to murder other Korean sexual slaves in an air-raid shelter in Yunnan, China. Survivors of the sexual slavery testified that whenever they lost a battle the Japanese soldiers, on return, vented their anger on their sexual slaves, sometimes killing them.

Nevertheless, the Japanese politicians are clumsily denying or feigning ignorance of their predecessors' extra-villainous inhuman crime, insisting that the "comfort women made money," and that the "army's engagement was aimed at protecting the rights of the comfort women." Besides, they are asserting that the issue of sexual slaves should be discussed in a quiet place by historians or experts and that it should not be regarded as a political issue and a diplomatic issue.

Regarding this, the international community is demanding that Japan take the responsibility for the crime of sexual slavery and atone for its past as soon as possible.

Statues of a young sexual slave girl and memorials are appearing in succession in different countries and regions of the world, and a website has been opened in the US which is aimed at educating students in Japan's history of crimes of sexual slavery.

The Japanese imperialists' crime of sexual slavery remains a painful memory despite the passage of time. As long as Japan cunningly keeps trying to conceal its old heinous inhuman crime, such statues and memorials will continue to appear around the world.

Rim Hye Gyong

# National Tree—Pine

THE KOREAN PEOPLE HAVE LIVED IN close connection with pine tree since the early stage of human culture. Indigenous to Korea pine tree has existed in its territory since the origin of mankind. It was over 5 000 years ago that pine tree forests rapidly spread in the country. The botanical name of the Korean national tree is *Pinus densiflora*. Worldwide known species belonging to the pine kind number over 110.

Korea is the original home of pine and centre of worldwide pine distribution.

With great vitality and capability to root, pine grows well in a place where it has rooted first even though it has poor soil. This can be known from the fact that a pine colony has not been replaced by that of other species for hundreds or thousands of years since it was formed.

Its trunk bark is darkish brown in the lower part, and reddish brown in the upper part. The plants belonging to the pine kind has 2- to 5-needle leaves, but the national tree of Korea has 7- to 12-centimetre-long two-needle leaves, each

wrapped in a grayish brown scale leaf cover unlike other kinds of pine trees.

As a sun plant, it has a cloud-, cone- or umbrella-shaped crown. Its aroma is strong, and the ends of its leaves are as sharp as a thorn. With a strong ability to stand winter it grows well in a harsh condition with a low temperature like in Hyesan, Ryanggang Province, Korea.

The Korean people like the tree very much as it is always fresh green even in snow and frost.

Ri Kwang Ho, director of the Botanical Institute of the State Academy of Sciences, says, "When seeing an aged pine tree with graceful foliage growing steadily on the top of a rock, you can notice that the tree is a wonderful harmonious combination of firmness, gentleness and beauty. The Korean people love the tree particularly perhaps because they think it reflects their characteristics—broad-minded and strong-willed and modest and gentle—and their detailed sentiments."

Sim Chol Yong



