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REPORT

World media splash Kim Jong Un's activities

Supreme Leader Kim Jong Un's activities hit the world headlines between August 17 and 24.

Russia's Tass reported on his field inspection of the construction site of the Wonsan-Kalma coastal tourist area.

The news was also reported by Chinese Hong Kong's newspaper South China Morning Post, Russia's Ria Novosti and Interfax, Cuba's Prensa Latina, Iran's Pars News Agency and Press TV, India-Asia news agency, Nepalese newspaper The Arpan, Japanese newspaper Nihon Keizai Shimbun, British newspaper Express, the Internet bulletin on international issues of the Communist Party of Argentina and the website of the Portugal-DPRK Friendship Association.

China's Global Times website reported that the DPRK Supreme Leader provided on-the-spot guidance to the hot spring area in Yangdok County, South Phyongan Province.

Both of them were covered by China's overseas network, Iranian newspaper Financial

Tribune, and the websites of the Anti-Imperialists Forum of Germany, the Nigerian National Committee for the Study of Kimilsungism-Kimjongilism, the national committee for the study of the Juche idea of the Democratic Republic of Congo, the Italian branch of the Korean Friendship Association and the Paektusan Czech-DPRK Friendship Association.

Guinea's domestic international and seven national languages broadcasting programmes and Japan's Kyodo News Service and Tokyo Shimbun reported the news about the DPRK Supreme Leader's inspection of the preparations for the construction of the Onpho greenhouse farm in Kyongsong County of North Hamgyong Province.

It was also posted on the websites of the national committee for the study of the Juche idea of the Democratic Republic of Congo and the Polish international friendship initiative to know the DPRK.

Compiled from KCNA

PREPARATION

DPRK's 70th anniv to be celebrated across the world

Preparatory committees for celebrating the 70th founding anniversary of the DPRK were formed in Russia, Venezuela, Italy, Germany, Romania, Bangladesh, Mongolia, Kyrgyzstan, Kuwait, Sweden, Thailand, Ukraine and other countries.

The inauguration ceremonies were attended by important personages of political parties and organizations in each country.

The committees set the periods to celebrate the DPRK's 70th anniversary and decided to organize a variety of political and cultural events in order to praise the undying exploits President Kim Il Sung and Chairman Kim Jong Il had performed for the foundation and development of the DPRK and the achievement of the cause of independence of humankind and give wide publicity to the achievements the Korean people

have made in the building of a socialist power.

Seminars and photo shows took place in Russia, Uganda and Nigeria to mark the DPRK's founding anniversary.

Speakers at the seminars said that President Kim Il Sung, eternal leader of the Korean people, founded the DPRK and turned it into a country of the people which thoroughly embodies the Juche idea, highly praising his exploits for founding the DPRK.

It is only socialist Korea that victoriously advances as it frustrates all base tricks of the imperialists, and invariably enforces such popular policies as free medical care and free education, they said, extending warm congratulations to the Korean people on the occasion of the 70th anniversary of the DPRK.

Compiled from KCNA

PRODUCTION

Metal industry takes the lead in nationwide drive

Metal works are making innovative achievements.

The Kim Chaek Iron and Steel Complex succeeded in establishing a process of producing rolled steel based on coal gasification and in turning out steel sheets with Juche molten iron on August 28. It is a modern line in which molten iron production and steel production are integrated. It makes it possible to markedly increase iron and steel output by ensuring continuous heating with the high-temperature air combustion heating furnace using coal. The complex mobilized all its technical force and tapped all production potentials to complete the gigantic Juche-orientation project in a short period.

The Chollima Steel Complex has almost finished the upgrading of the process of producing seamless steel pipe. The seamless steel pipe

workshop of the complex has carried out the building and equipment installation of the high-temperature air combustion rotary heating furnace, successfully conducted the trial operation of its sections and completed the small pipe heating furnace to provide a guarantee for increasing the production of the pipe.

The Hwanghae Iron and Steel Complex also completed the building of the oxygen converter and succeeded in its general trial run. To this end, it carried out the land clearing around the production building housing new converter facilities, excavation and foundation laying and the building of over ten settling ponds and a pumping station in a little over half a year and finished the installation of a large steel structure, the body of the converter and an overhead crane in a short span of time. The technicians of the complex

who launched into the trial operation of converter sections in April decided on the charge weight in the new converter and revamped the process more rationally to provide the technical guarantee for running the converter scientifically. The new oxygen converter taps molten iron with higher quality and in larger quantity than previously to remarkably boost steel billet output at the continuous casting process.

The Puryong Ferroalloy Factory is increasing daily output 1.2 times as compared to previously while speeding up the building of a new type of ferroalloy furnace at the final stage. Ferroalloy workshop No. 2 has reduced the electrode-replacing time and melting time per charge to produce dozens of tons of molten iron more every day.

By Choe Kwang Jin PT



KIM JIN MYONG

Steel sheets roll off the production line based on coal gasification at the Kim Chaek Iron and Steel Complex.

COMMEMORATION

Anti-Japanese Trade Union 90 years on

President Kim Il Sung formed the Anti-Japanese Trade Union in Jilin of Northeast China on August 25 1928.

The trade union was the first revolutionary mass organization of the Korean working class, which was guided by the Juche idea and which educated and awakened broad segments of workers and vigorously mobilized them in the struggle to carry out the Juche-based revolutionary line.

The formation of the Anti-Japanese Trade Union enabled

Korean workers to fulfil their historical mission and duty in the sacred struggle to achieve national liberation and class emancipation, closely rallied around the genuine political organization led by the outstanding leader.

A national meeting was held on August 24 at the Central Hall of Workers to commemorate the 90th anniversary of the anti-Japanese organization.

It was attended by Choe Hwi, vice-chairman of the Central Committee of the Workers' Party of Korea, officials

and members of the General Federation of Trade Unions of Korea, and other workers.

Ju Yong Gil, chairman of the Central Committee of the General Federation of Trade Unions of Korea, said in his report that the President founded the trade union, the unified mass organization of the working class, after the country's liberation on the basis of the precious tradition of building mass organizations he had established in the flames of the anti-Japanese revolution, thereby uniting the working class, the main driving force and core unit of the revolution, into a single force.

With his unusual ideological and theoretical wisdom and energetic

DPRK 70th anniversary

Under the ideal of independence, peace and friendship

The DPRK has consistently maintained the ideal of its foreign policy—independence, peace and friendship—over the past 70 years from the first day of its foundation.

It was the dream of humanity and the aspiration of the country as well to build a new, independent world where there is no aggression and oppression and where independence of all nations is championed.

The imperialist forces intensified their moves to aggression and armed interference against socialist countries and newly independent countries by taking advantage of the defects in the international communist movement which failed to achieve its internal unity due to differences in views in the 1960s. But the DPRK held higher the banner of independence and made positive efforts to strengthen the unity of the revolutionary ranks in line with the requirements of the prevailing situation and reality.

Even when the opportunists and revisionists were engrossed in the scramble for hegemony dividing and breaking up the revolutionary ranks, it held fast to the principled attitude to defend the unity of the socialist camp and strengthen cohesion of the international communist movement. It made every endeavour to bolster up unity with the communist and workers' parties in various countries of the world and establish and develop diplomatic ties with more developing nations.

In the course of this, it

rendered full support and unsparring assistance to the Vietnamese, Cuban and other peoples in the war to achieve national sovereignty.

In the 1970s and 1980s the imperialists and dominationists grew more vicious in their attempt to block the path of the world's progressives to independence. The DPRK put forward the slogan "The people of the world who advocate independence, unite!" and put more efforts into further cementing the unity of the anti-imperialist independent forces.

It gave top priority to achieving unity and cohesion between socialist nations, directing a great deal of energies to overcoming disagreements in their opinion.

After joining the Non-Aligned Movement in August 1975, it made a distinguished contribution to its development.

It worked hard to boost the movement, calling on all member nations to defend the unique tradition and characters of the movement and steadily maintain independence without being lured by foreign dominationist forces' "aid" or duped by their tricks to alienate and divide them, to settle disputes through negotiations out of the desire for unity, to fight against the moves of dominationist forces to aggression and interference with the strategy of unity by forming a united front embracing broader segments of people on the principle of noninterference in other's internal affairs and to strive to establish a new international economic order



The opening ceremony of the 13th World Festival of Youth and Students held at Pyongyang's May Day Stadium in July 1989.

and fight against the privileges and arbitrariness of big powers in international politics.

The international status of the DPRK, which has been building socialism, independent, self-sufficient and self-reliant in defence in the face of the anti-socialist campaign of the imperialists and the world political turmoil, has grown incomparably higher in the new century.

The DPRK bolstered up friendship and cooperation with all countries in the world that respect its sovereignty and approach it friendly. It forged diplomatic ties with many Western countries including Britain, the Netherlands, Spain and Germany and boosted the traditional DPRK-China and DPRK-Russia friendship to a

new high level.

Visits of high-ranking officials were made frequently between the DPRK and China and between the DPRK and Russia. They made satisfactory agreements to boost bilateral friendship and had a wide-ranging exchange of views on major international issues.

In September 2002 the DPRK-Japan Pyongyang Declaration was adopted.

Today when an unprecedented dramatic change has taken place in the Korean peninsula situation, the DPRK pursues the foreign policy of independence, peace and friendship more proactively.

Supreme Leader Kim Jong Un visited China three times in less than three months this year to raise the bilateral friendship

to a new historical stage of its development. He made a crucial decision to end the extreme hostility between the DPRK and the US which had stood against each other for the longest time on the globe, and successfully held the historic DPRK-US summit meeting and talks.

All these successes the DPRK has achieved on the international stage are a clear demonstration of the validity and vitality of its foreign policy of independence, peace and friendship.

The DPRK will, as ever, work hard to build up its international standing under the ideal of this foreign policy and positively contribute to building a new independent world and a world peaceful and prosperous.

Kim Rye Yong



Premier Pak Pong Ju (first from left) inspects the Unha Cooperative Farm in Onchon County.

INSPECTION

Premier inspects agricultural units

Premier Pak Pong Ju, who is also member of the Presidium of the Political Bureau of the Central Committee of the Workers' Party of Korea and vice-chairman of the DPRK State Affairs Commission, made a survey trip to different farms and agricultural research units in North and South Hwanghae provinces and Nampho City, including the Kulloja Cooperative Farm in Sinchon County, Chimchon Cooperative Farm in Hwangju County and Unha Cooperative Farm in Onchon County.

Looking round farms, construction sites and experimental plots, he learned about damage

by natural disasters and crop growth, and stressed the need to actively introduce scientific farming methods, raise the quality of construction projects and step up research into salt-tolerant rice species for tideland-turned paddies and their introduction.

The on-site consultative meetings reviewed the successes and mistakes made in the course of attaining the goals of the five-year strategy for national economic development, discussed immediate and long-term plans and took measures to implement the Party's agricultural policies.

Anniv: GFTUK dates back 90 years

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guidance Chairman Kim Jong Il defended the President's idea on and leadership exploits for the building of mass organizations and ushered in a great heyday in the building and activities of the GFTUK, he said.

Supreme Leader Kim Jong Un is wisely leading the GFTUK to invariably maintain its revolutionary characters and take the lead in the grand march to bring earlier the final victory of revolution, he noted, calling on all workers and trade union members to fully demonstrate the revolutionary spirit and mettle of the working class of Kim Il Sung and Kim Jong Il in the all-people campaign for creation under the leadership of the Supreme Leader.

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INNOVATIONS

Heavy equipment technically upgraded

The Taean Heavy Machine Complex has made innovations in the production of custom-built equipment by stepping up the technical upgrading of its large processing machines.

The technical staff of the complex made a device which can automatically be controlled in real time so that the weld of

a solid with a curved surface is always put on the horizontal surface and combined it with automatic welder, thus developing a CNC curved surface welder with which to ensure qualitative welding of curved surfaces of various custom-built equipment in a short time.

And the material technicians



PAK CHANG BOK / THE PYONGYANG TIMES
Ordered equipment is processed at the Taean Heavy Machine Complex.

CRAFTSMANSHIP

Brassware registered as best local products

Tasty are the foods with a strong national flavour at the Okryu and Chongnyu restaurants famous for Pyongyang cold noodles. Also attractive is the tableware used for serving them.

Large flat vessels and bowls for noodles, wine cups, chopsticks, cooking brazier, kettle and other golden yellow brass containers look weighty and alluring, reminding visitors of exquisite metal craft.

These are the products of the Pothonggang Ironware Factory.

With a 60-odd-year history of metalwork, the factory has produced brassware including tableware for over 20 years.

It makes brassware by mixing copper, tin and zinc. The characteristic of this factory's brass making is that it ensures the weight and quality of products by casting without rolling.

The technical personnel of the factory selected locally abundant raw materials and found out a proper mixing ratio of them according to the properties of brass that easily discolours and is very brittle.

The factory pays constant attention to research to choose more rational mixing ratio, casting temperature and method of raw materials.

By so doing, it ensures all the

established a scientific plan for the high-frequency heat treatment of large gears on the 8-metre hobbing lathe and designed a large-capacity high-frequency heat treatment power supply system in an innovative method to suit the local conditions. As the new heat treatment device was developed, they established new standard regulations of operation and constants of the process to ensure the quality of products, thereby perfecting the CNC application to processing large gears.

They also installed large-capacity servo motors in large CNC machine tools which needed high cutting power, providing a scientific guarantee of making innovations in the production of custom-built equipment. They developed an efficient servo motor by inventing a new speed reducer and flexible shaft which can ensure the work efficiency properly without big change in structure of machine tools. The introduction of the new shafting further increased the accuracy of finishing products and improved the technical performance of processing equipment.

On the basis of this success, the complex installed servo motors in dozens of large CNC machine tools including boring machine and grinder, saving 30 and 40 percent of manpower and electric power respectively and increasing productivity 1.5 times.

The complex has set itself a higher goal to upgrade more large facilities and is now pushing the technical upgrading of the overall production processes as well as processing equipment including the multipurpose machine tool and all kinds of milling machines.

By Choe Kwang Jin PT

indices of quality including the colour, crystallization, sterilizing power, rust-proofing and gloss maintenance at a high level and upgrades them constantly.

The number one merit of brassware is that it is very good for health and long life.

It is efficacious in the treatment of cardiopathy, hepatitis and other diseases and prevents cancer and cerebral thrombosis. As it changes its colour when it contains poisonous or less fresh food and perfectly sterilizes water within five minutes after it is poured into it, it is best as the vessel for foods.

This is the reason why the Koreans have liked to use brass tableware for foods and even washbasin and brazier since olden times.

The factory's brassware, which looks fine and is good for health, has been registered as February 2 Products, the best local products.

By Chae Hyang Ok PT

MACHINERY

Various kinds of construction machines made

The Pyongyang Construction Machine Factory has newly made various kinds of high-performance vacuum vibrators, motor-powered self-climbing scaffold, and mortar mixer.

These machines are appreciated to be of high utility as they can save much labour and materials in concrete work.

The single-phase vibrator can be used easily irrespective of the size and place of construction projects.

Most noticeable is that they are small, but have a good vibration effect

during concrete tamping. Therefore, they are very helpful to improving the speed and quality of structure construction including concrete laying for slabs and masonry for the walls.

The electronic vibrator is particularly effective for the construction of high-rise buildings as it needs less time and labour for the preparations for operation and uses no motor.

The new vibrators are also much lighter than the previous ones.

By Song Yong Sok PT

R&D

Powerful ultrasonic device developed

The Cutting-edge Science Research Institute at Kim Il Sung University developed a powerful ultrasonic processor.

It is a device that produces over 1 000 watts of electric output with one concentrator. As a strong ultrasonic field has great energy it can fragment solid particles finely into a nano level to synthesize solid nano powder massively, speed up all kinds of chemical reactions, prevent dispersion and cohesion of nano materials and extract effective organic substances.

After years of research the researchers made the powerful ultrasonic processor with locally available materials.

It can be operated for over an hour in succession and its constant power output is 2 500 W with over 90 percent of efficiency.

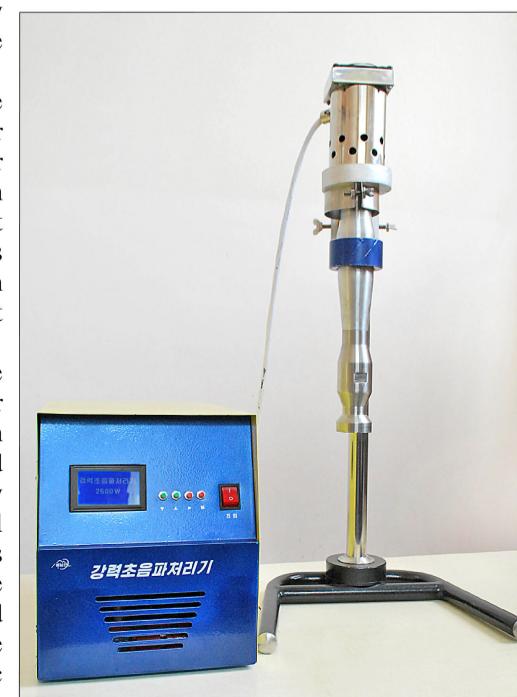
The processor has been introduced into many industrial establishments to fully prove its good performance and economic effectiveness.

Machinery factories have

enhanced cleaning effects more than 10 times while sharply reducing the time of cleansing machine parts. The Taedonggang Combined Fruit Farm and the Songchongang Shipment Station produced highly effective preserving solutions to markedly increase the storing period of fruit and fish.

The development of the processor has made it possible to widen the application of nano materials while reducing their production costs and realize the domestic production of industrial ultrasonic devices.

By Jong Hwa Sun PT



PAK KWANG HUN / THE PYONGYANG TIMES

New ultrasonic processor.

YOUTH

Youth Day marked

Youth and students across the DPRK celebrated Youth Day, full of pride in demonstrating their heroic spirit and mettle on every front for the building of an economic giant in hearty response to the militant call of the Workers' Party of Korea for turning out in the drive for increased production to attain the goals of the five-year strategy for national economic development.

Senior Party and government officials joined them to celebrate Youth Day on August 28.

Kim Yong Nam, member of the Presidium of the Political Bureau of the Central Committee of the Workers' Party of Korea and president of the Presidium of the DPRK Supreme People's Assembly, and other senior Party and government officials

and central and local officials visited Pyongyang Teachers Training College, the Pyongyang Kim Jong Suk Textile Mill, Pyongyang Thermal Power Complex, Wonhwa Cooperative Farm in Phyongwon County, Hwanghae Iron and Steel Complex and other factories, enterprises, farms and universities to congratulate young people on their holiday.

They gave pep talks to exemplary young people and students, saw art performances and attended a variety of events, including sports and amusement games.

Young people across the country enjoyed their holiday, seeing art performances and playing amusement games.

The artistic motivational

squad of the youth league central committee gave an art performance at the Central Youth Hall on August 27 to mark Youth Day.

The performers artistically represented their boundless reverence for President Kim Il Sung and Chairman Kim Jong Il who built the youth power by administering the politics of giving priority to and loving youth and their firm trust in Supreme Leader Kim Jong Un who has ushered in the greatest heyday of the Korean youth movement.

Young people and students held dancing parties in Pyongyang and provinces to mark the day.

By Pang Un Ju PT



Young people get together to celebrate Youth Day.

MEDICINE

Factory produces effective traditional medicines

The Tongyang Koryo Medicine Pharmaceutical Factory manufactures highly efficacious medicines using locally abundant materials.

The capsules filled with extracts of traditional medicines

are convenient to use and highly absorbable in the stomach and intestines.

Unlike the western synthetic drugs which only focus on the symptoms of individual diseases and therefore fail to

treat their causes, its natural CardiHerb, GastroPancreoHerb and Natural HepaHerb capsules facilitate the circulation of blood and energy and treat illnesses in a comprehensive manner in consideration of correlation among tissues and internal organs. They have also been made to have quick effect with small quantities and no side effects by overcoming the limitations and shortcomings of previous Koryo medicines.

The CardiHerb surprisingly improves blood circulation and balances the functions of all internal organs including the heart and digestive organs and thus removes the causes of maladies.

The factory also produces various functional goods with natural raw materials including beauty aids and Phalgok (eight staple cereals) tea.

By Chae Hyang Ok PT



A pharmacist is engaged in an experiment to develop an effective traditional medicine.

EXHIBITION

National youth sci-tech exhibition held



PAK KWANG HUN / THE PYONGYANG TIMES

Researchers look round exhibits of the national youth exhibition of sci-tech achievements.

A national youth exhibition of scientific and technological achievements was held at the Sci-Tech Complex between August 22 and 29.

On display were over 100 sci-tech findings and more than 700 inventions and original plans presented by youth league organizations at all levels including provincial youth league committees.

Among them were a pitch production technique using waste plastic, a 5D bag designing program, a supersonic anti-epizootic medicinal sol generator and a block production technique using pig iron slag.

The supersonic medicinal sol generator, which was developed by young researchers of the microbiological institute of the State Academy of Sciences, was highly appreciated by animal husbandry experts and other visitors as it makes it possible to markedly improve hygienic

By Ri Sung Ik PT

HIGH-TECH

New type of solid-state relay developed

The semiconductor institute of Kim Chaek University of Technology has developed a solid-state relay, an electronic component essential to putting equipment and production processes on a CNC and unmanned basis.

The developers designed a shadow mask to make a bidirectional thyristor of a new gate structure that increases gate sensitivity, and solved many technological problems arising in improving electrical property of the device.

After conducting dozens of tests, they selected suitable elements and materials for the relay. On that basis, they set up processes needed for the manufacture of parts and finally brought out a trial

product.

Tests and introduction into pilot factories proved that the new solid-state relay has high electrical property and output and is also superior in safety to imports which were used previously.

"There is a firm technological guarantee for mass-producing the relay with the present production capacity and a bright prospect of uninterrupted production as it only requires local materials," said a developer Ri Sin Ung.

The researchers are now pushing research into increasing the output of the relay and simplifying the production method.

By Jong Tang Song PT

ANNIVERSARY

Powerhouse of sports science and education

Today is the diamond jubilee of Korea University of Physical Education.

Over the past 60 years it produced lots of officials and talents in the sports field as it played the role of an engine promoting the development of the country's physical culture and sports.

Back in the 1960s, it trained many capable experts who could keep up with the rapid progress of sports, while laying solid pedagogical foundations to guarantee the training of sports talents by combining the teaching of theories and practical training.

The efficiency of education was fully displayed by the students' results at international and national sporting events.

Its students won lots of international and local games, including Jo Won Hak who brought home the first gold medal for the university by taking the first place in the 60 kg judo category in the First Games for the Newly Emerging Countries (GANEOF) held in Indonesia's Jakarta in November 1963.

Later, it set up faculties for training lecturers and instructors including those of coaches and basic sports science and a department of upper secondary students.

In April 1998 it established different faculties and courses including the faculty of sports medicine and courses of sports nutrition, sports treatment

and sports psychology, and laboratories for studying player selection, sports information and sporting events as well.

Lecturers and researchers have made a great deal of scientific achievements.

The university has also a department that produces and disseminates mass gymnastics.

The department left an indelible imprint in the country's history of mass gymnastics as it produced many such pieces ranging from the mass gymnastic display *Our Glorious Motherland*, which was created in celebration of

the 14th anniversary of Korea's liberation on August 15 1959, to the grand mass gymnastics and artistic performance *Arirang* which is widely known to the world. Most recently, it completed rhythmic exercises for such sports as basketball, wrestling, boxing and artistic gymnastics to contribute to their development.

Today, the university has turned into a reliable institution for training sports talents and a "pedigree establishment" of sports science and education with experienced teaching staff involving such academic degree

and title holders as candidate academician, professor and PhD and seven faculties, over 30 departments, a postgraduate school, sports science institute, gym, library and publisher.

It has produced such world sports aces as Kye Sun Hui, three-time world judo title holder, and Pae Kil Su, world pommel horse king, and other excellent players and coaches, and its graduates form the backbone of the country's sports field.

It puts great efforts into scientifically working out educational content to achieve its talent-training goal in line with the requirements of the present times when a revolution in education in the new century is going on, and into improving educational conditions and environment.

By Jong Tang Song PT



Lecturers and students of Korea University of Physical Education look back on its 60 years with great pride.

HEALTH

Biological resonance therapy widely applied

Humans scientifically proved long ago that resonance happens when an object vibrates at the same rate as the sound waves from another object and have

widely used the phenomenon since then.

It is also used for medical treatment as a biological resonance therapy.

It cures illnesses on the principle of removing abnormal fluctuations and amplifying regular ones after collecting and analysing micro-electromagnetic waves in the human body. It is said that the therapy gives no pain to patients, has no side effects nor any risk of relapse after the diseases heal.

In the DPRK research into the therapy has been conducted for a long time. It has widely been introduced into clinical practice in recent years after enough clinical tests.

According to the researchers, it is not long since the therapy began to be used in the country, but over 90 percent of cases have recovered from knee joint bursitis, gynecopathy, mastopathy and other diseases.

"Frankly speaking, I was doubtful about the effect of this therapy at first," said Jong



A woman undergoes a biological resonance therapy.

Hyang Mi, 58-year-old woman who had suffered from severe knee joint bursitis. "I could not believe in disease treatment without medicine or injection. Mysteriously, however, pain stopped and I became able to move gradually not long after I began to receive the therapy."

"I received various kinds of medical treatments, but in vain. So I almost gave up. But after receiving the biological resonance therapy I live without inconvenience," said Ro Kum Hwa, 67-year-old woman who could not move due to severe pain caused by slipped disk.

"Marked achievements have been made in the research into the therapy and treatment of various diseases by it, which helps gradually raise public awareness of the new therapy," said Kim Won Il, head of the biological resonance therapy laboratory at the Pyongyang Medical College Hospital of Kim Il Sung University.

The lab is now working to perfect the therapy so that it can be applied extensively to the treatment of all other diseases.

By Ri Sung Ik PT

RESEARCH

Sci-tech hits promote growth of mining industry

Proud achievements have been made in scientific research at the Central Mining Research Institute, which are conducive to the development of the country's mining industry.

The institute developed a technology of producing manganese concentrate from low-grade wad and established a large-capacity production process, a contribution to enhancing the independent and Juche characters of metallurgical industry. Researchers of the institute conceived a new physical concentrating technology of wad and developed a dressing method which can more than double the grade of concentrates. They also established an ore-dressing plant with an annual capacity of tens of thousands of tons and a system of mass producing ferromanganese with a high content of manganese at the Hwanghae Iron and Steel Complex.

The institute also established a high-grade graphite production process which is helpful to iron and steel production. Researchers newly added the floatation and reagent processes to the graphite dressing process to raise the grade and extraction rate of graphite concentrate for electrode to be used in UHP electric arc furnace.

A modern pneumatic flotation machine recently introduced into the Komdok Mining Complex is also a sci-tech hit of the institute. It increases the lead and zinc extraction rates much higher than the old mechanical one while more than halving manpower, electricity, steel, reagent and other materials consumption. The introduction of the new flotation machine has enabled the complex to reduce the production area to a quarter and prevent environmental pollution by the residue.

The institute also developed a new lubricant, which can be used in various economic sectors, including mining and machine-building industries and rail transport. In the form of a very fine powder which is made by using a high purity dressing method and air hyperfine pulverization technology, it more than doubles the lifetime of high-speed machine parts and tools and lengthens the lubricant changing period by one third. It is now popular with customers in dozens of units.

Other sci-tech hits include a layer mining method which can cut ore over three times more than before with one blasting in the mining process, a double-side intake centrifugal ventilator which raises ventilation in pits, and a hemispherical head of chisel with which to increase the drilling speed over 1.5 times.

By Choe Kwang Jin PT

CELADON

Koryo celadon enriches national cultural heritage

Modern theatres or hotels, government agencies, exhibitions and monumental structures are often decorated with celadon or other ceramic ornaments in the DPRK. The same is true with families.

Koryo celadon is a typical cultural heritage element of the Korean nation.

Everyone wants to buy a Koryo celadon in the DPRK and if they get it as a souvenir, they keep it as a family heirloom.

Koryo celadon is one of the most excellent ceramics widely distributed in the period of the Koryo Dynasty, a Korean feudal state that existed between 918 and 1392.

Charm of the celadon

Koryo celadon is greenish blue but has a special tint that has no match or cannot easily be found in nature.

In other words, the colour is not blue, nor green, nor the middle of them. So, it is called jade green.

Koryo celadon is limpid, bright, soft and subtle, so it is deep and noble. The colour is so clear and clean that it has been likened to the azure sky in autumn or after rain and blue water flowing in the deep forest since long ago.

The colour is not a simple mixture of colours or the change of tints or shades, but can be claimed to be the "crystal" of colours made by technical and engineering treatment.

The jade green colour reflects the feeling and taste of the Koreans who like bright, clear, simple and soft things.

Early Koryo celadon had no decoration.

It had no decorative patterns, but its beautiful form was in good harmony with clear, transparent and fresh glaze of celadon, which added to the features of early celadon.

Later, Koryo celadon earned more fame as it employed sculptural techniques in pattern decoration like engraving, scratching and printing, the graphic technique like painting and the inlaying technique.

Inlaid celadon is the epitome of ceramics.

Inlay is varied in style, but ordinary ones are a balanced array of flowers, cranes or clouds on the front and the back, or on the right and left.

The beautiful effect of elaborate inlays subtly seen through the limpid glaze is produced only by Koryo celadon.

It is also varied in kinds such as vase, bowl, dish and pot, which are also of various shapes and sizes.

"The lines of forms of Koryo celadon are mostly long curves, which makes it look thin, soft yet lively and energetic. So Koryo celadon is also known as a ceramic of lines," said Kim Kyong Sop, director of the ceramics production unit of the Mansudae Art Studio.

The harmony of mysterious jade green colour, varied and elegant inlays and beauty of soft and rhythmic shapes—this is the unique charm of Koryo celadon which has been preserved intact for a thousand years.

Soul of Koryo celadon carried on

"The Koryo people call the greenish blue earthenware jade

green pottery. The workmanship has grown wonderful in recent years and the colour and gloss are more beautiful," says an old record *History of Koryo Pottery* published in the period of Koryo Kingdom.

The most typical celadon pieces from the early Koryo period are a blue ceramic plate with the base and a five petal-shape blue ceramic dish unearthed from the tomb of Jongryong, third king of Koryo (946-949), in Kaesong in 1978.

There are also the ceramics unearthed from the five-storey stone pagoda of the Puril Temple built in 951 and a ceramic pot and a wave-patterned pot from the five-storey stone pagoda of the Jongchu Temple in Chilgok County, North Kyongsang Province.

The 11th and 12th centuries were the golden age of Koryo celadon and it continued to develop in the 13th and 14th centuries, adding to its excellence. But it suffered setbacks in its development by the restrictions on the use and production of coloured ceramics by the rulers of the feudal Joson dynasty and Japan's barbarous policy of eliminating Korean culture during its military rule over Korea.

Large numbers of Koryo celadon pieces were drained out of Korea as the major target of plunder by foreign forces. As a result, they are on show at art galleries in the US, Britain, Japan, France, the Netherlands and elsewhere.

Modern Koryo celadon found a new way of its development thanks to the DPRK policy of preserving national culture after Korea's

liberation in August 1945.

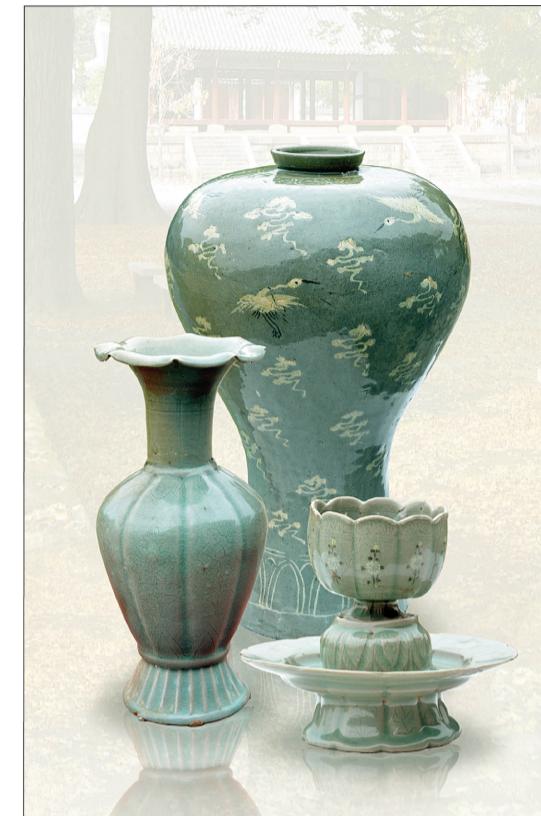
Many superb celadon pieces were produced by U Chi Son and Im Sa Jun, who were known as great masters of modern Koryo celadon, by inheriting the soul of celadon art.

"Continuous insam(ginseng) flower pattern inlaid celadon vase", "grape-patterned and gourd-shaped teapot" and "carp-patterned openworked vase" are modern Koryo celadon pieces of national treasure value.

Some are over two metres high.

Modern Koryo celadon pieces won gold and first prizes at many expos and exhibitions held in China, Britain, Singapore, Indonesia and other countries, including the exhibition of modern Koryo celadon by two masters in 1983, exhibitions of modern Koryo celadon and paintings by renowned artists in 1987 and 1989, 2014 Shanghai international art expo and China Jingdezhen international ceramics expo.

Last year the ceramics production unit of the Mansudae Art Studio broke fresh ground in the decoration of Koryo celadon



PAK CHANG BOK / THE PYONGYANG TIMES

Celadon pieces from the Koryo period.

by introducing luminous decoration to make various inlaid decorative patterns shine with beautiful and elegant bright bluish white fluorescent light in the darkness.

"We do not think what we inlay in the ceramics is merely flower or bird. It is the soul of the nation. We will implant that soul into Koryo celadon not only in our generation but in our children's and the next generations on and on," said Im Kyong Ik, Merited Artist at the Mansudae Art Studio.

The art of Koryo celadon is a national intangible cultural heritage element.

By Yang Ryon Hui PT

HEALTH FOOD

Efficacious iodine products

Amid intensive scientific research into preventive medical treatment of diseases caused by iodine deficiency, iodine products of the Pyongyang Jangwon Technical Exchange

Centre draw particular interest of local people.

They are natural health medicines and foods, called iodide oil capsule and iodine nourishing pill.



The researchers of the centre succeeded in extracting iodide oil by a bioengineering method on the basis of a new idea that a strong physiologically active material which contains organic iodine can be obtained from sea creatures, and developed iodine products with it as the main ingredient.

The new iodine products are 2.5 times higher than others so far developed in absorption and efficacy and have a very wide range of treatment of diseases caused by the breakdown of iodine balance.

And their treatment effects last long.

Regular use of them is recommended for the

prevention and treatment of various thyroid gland diseases including simple thyroiditis of adolescents, hyperthyroidism and hypothyroidism, rheumatoid arthritis, autonomic imbalance, radiation damage and other diseases.

They attract particular interest of pregnant women because they not only help enhance physiologically active function of human body by improving metabolism but also markedly promote the growth and intelligent development of the unborn fetuses.

They also help children grow tall and become clever by promoting their physical growth and nutritional and intelligent development of the brain, while preventing the development of circulatory system diseases as arteriosclerosis, cerebral thrombosis and hypertension

among the older persons by reducing cholesterol content in blood, or making it possible to easily treat them.

"According to clinical tests, thyroid gland diseases, in all cases, showed 70 percent recovery rate of subjective symptoms one month after the beginning of medical treatment and nearly 100 percent after three months. And children grew tall two times faster and recovered from adolescent rheumatoid arthritis after one month," said key developer Ko Un Hyang.

The local patented products drew the focus of attention at several international trade fairs and sci-tech exhibitions.

These functional iodine products are in great demand for their high safety in human body and good prospect for utility.

By Jong Sun Bok PT

Popular iodine products.

NAM

Non-Aligned Movement should uphold its ideals

It is the Day of NAM (Non-Aligned Movement) today.

It commemorates the opening of the first non-aligned summit meeting held on September 1 in Belgrade in former Yugoslavia 57 years back.

NAM's ideal is anti-imperialism and independence, and its mission is to oppose all forms of domination, subjugation, aggression and interference, achieve national sovereignty and ensure free socio-economic progress.

NAM advanced vigorously to attain its goal over the past decades and today it has grown to be a powerful force embracing 120 countries.

It is enhancing its position and increasing its say on the international arena.

The movement works hard to strengthen solidarity and unity between member nations and positively conducts joint actions on the international stage, while rejecting the imperialists' aggression and intervention and seeking solutions to all problems to meet the demand and interests of the peoples of developing countries.

In September 2016 the 17th non-aligned summit meeting took place in Venezuela on the theme of "Peace, independence, solidarity for development" with heads of state and government and high-ranking delegates of member states of the movement

and delegates of different international organizations in attendance. It discussed matters to reject intervention and hegemony-seeking of the imperialists holding up the banner of independence against imperialism, enhance the role of NAM on the international arena and intensify unity and cooperation of member states in realizing genuine international justice. It was another important occasion for giving a strong impetus to the movement.

It is important to hold higher the banner of anti-imperialism and independence in order to build up NAM.

Decades have passed since the end of the Cold War, but aggressive military blocs still exist on the globe and they persist in aggressive joint military exercises, use of arms and armed threat violating the sovereignty and territorial integrity of NAM member nations. "Colour revolution" and subsequent political turmoils, military conflict and disputes have been exacerbated across the world and refugee and other humanitarian crises have arisen due to the crafty and cruel tricks of the imperialists and dominationists. The majority of main victims of them are NAM member nations.

Reality clearly shows that NAM should enhance its position and role as a powerful

anti-war and peace-loving force and pool efforts on a worldwide scale to fight more resolutely against all forms of aggression, intervention and inequality.

It is imperative to cement the unity of NAM.

Reactionary forces around the world employ craftier means and methods to disintegrate NAM from within and weaken it and then get rid of its existence. They play cunning tricks to separate member nations from the ranks of the movement and have a grip on them on the pretext of "assistance" and "cooperation" while meddling in the disagreements and disputes that exist between member nations to drive a wedge and add fuel to them.

Unity is the power with which to frustrate their moves and attempts.

NAM should concentrate on promoting unity and cooperation and constantly expand the scope of joint actions in order to defend the collective interests and put into reality the principle of impartiality, objectivity and equality.

NAM is still faced with lots of challenges and difficulties.

But when its member nations are closely united and vigorously advance, the dream of humanity to build a peaceful and independent world will surely come true.

By Kim Rye Yong PT

SOLIDARITY

DPRK-Cuba friendship unfailing

The DPRK and Cuba established diplomatic relations on August 29 1960, which provided momentum for further bolstering up the bilateral ties of friendship and cooperation.

The two countries have supported and closely cooperated with each other in the joint struggle for socialism and independence against imperialism, thereby making great progress in the revolution and construction and contributing greatly to international solidarity and the cause of global independence.

After their victorious revolution, the Cuban people turned out in the struggle to build socialism and made courageous efforts to defend the banner of socialism, while frustrating hostile forces' sanctions and pressure and their crafty attempts to disintegrate Cuba for over half a century.

Under the leadership of Fidel Castro and Raul Castro, they dynamically advanced along the road of independence as they staunchly defended socialism in the face of all hardships caused by the hostile forces' embargoes.

Miguel Mario Diaz-Canel

Bermudez, who was elected president of the Council of State of Cuba at the plenary meeting of the Ninth National Assembly of People's Power of Cuba held in Havana in April, said that the new legislative body has no place for those who advocate returning to capitalism, but only for those who are determined to go along socialism. The only way for Cuba to go is to achieve overall unity to invariably carry on the exploits of the first generation of the revolution who won victory in the revolution in 1959, he stressed.

The Korean people extend full support to the Cuban counterpart, regarding them as their old comrades-in-arms and close friends with the strong spirit of independence against imperialism, high fighting efficiency and great fidelity.

The Cubans also give positive encouragement to the Koreans in their efforts to build a powerful socialist country.

The ties between the two countries that advance with the common ideal and aspiration will further be cemented with the passage of time.

By Song Jong Ho PT

JAPAN

Trick to worsen situation

Japan is reportedly discussing with the UK the staging of a joint surveillance operation targeting the "illegal" transshipment by the DPRK in the open sea between November and December.

The operation is said to be conducted in a Japan-based US military base with the involvement of the UK's frigate HMS Argyll.

This is a revelation of the ill nature of Japan that runs counter to the present situation on the Korean peninsula and beyond that is developing towards peace and stability.

As recognized and lauded by the whole world, the DPRK which held the historic north-south summits and the DPRK-US summit successively took exceptional measures one after another to open the door to dialogue and negotiation and rapidly lead the situation to peace and stability.

However, Japan which is steeped in hostility towards the DPRK and harbours a wild ambition to become a military power does not squarely see the trend of the times, but clings to the foolish anti-DPRK policy.

Such acts have earned Japan

only the label of "mosquito just outside the mosquito net" and its alienation from the international community.

It would be reasonable for Japan to widen its vision and analyse the reality with a strategic insight, but it still commits such anachronistic acts.

What matters is that its military acts against the DPRK would check the current of peace flowing over the peninsula and bring a dark cloud of worsened situation to the region.

It is widely known that Japan has used tension on the Korean peninsula as the rationale for realizing its wild dream of military power.

But such a shallow trick does not work on anyone any longer.

Peace and security is a desire of mankind no one can dampen.

The more Japan is hell-bent on hostile acts against the DPRK to worsen the situation even by drawing in other countries, the greater the wrath of the Korean people will be and the fiercer the denunciation of the international community will become.

By Choe Yong Nam PT

INDICTMENT

Successive conservative groups in s. Korea denounced

The Reunification Information Department of the Committee for the Peaceful Reunification of the Country of the DPRK on August 27 issued an indictment disclosing the traitorous crimes the south Korean conservative forces have committed successively.

According to the indictment, the south Korean conservatives reneged on the historic July 4 North-South Joint Statement which was adopted and made public in the early 1970s and whose crux is the three principles of national reunification.

The Park Chung Hee military junta totally denied it and went wild to fabricate "two Koreas" as it issued a "special statement on peaceful unification and diplomatic policy" seeking the permanent division of the Korean peninsula.

The conservatives also challenged the June 15 Joint Declaration and the October 4 Declaration.

When the June 15 Joint Declaration was adopted and

published at the first-ever north-south summit meeting in June 2000, they frantically incited inter-Korean confrontation and war, shouting "Let us all rise and run to defend liberal democracy with the readiness to die in fight, rather than living without fight", and they made every desperate attempt to check the trend of the June 15 era thereafter.

The conservatives also drove inter-Korean relations to the worst crisis.

Under the reigns of Lee Myung Bak and Park Geun Hye they went to extreme lengths in their confrontational frenzy in a bid to destroy the June 15 reunification era and totally rupture north-south relations.

As soon as Lee came to power, he viciously slandered the historic inter-Korean declarations as a "document for anti-south operations" and a "political declaration without legal binding force". And Park spoiled the relationship with extremely reckless behaviour against the fellow countrymen,

driving the peninsula situation to the brink of war.

The conservative groups are confrontation maniacs hindering the implementation of the Panmunjom Declaration.

When the inter-Korean summit meeting was held at Panmunjom on April 27 and the Panmunjom Declaration for Peace, Prosperity and Reunification of the Korean Peninsula was published, they maligned them as a "camouflaged peace show" and a "declaration written at the dictation of the north". They also make a mockery of the sentiment of the south Korean public demanding the parliamentary approval for the declaration, saying they "will not allow parliamentary approval for the declaration which is only a tag without seeing the actual thing of denuclearization" and they "will not agree to the proposition of parliamentary approval as it is as good as the announcement of the intention to seek economic cooperation with the north despite the sanctions of the UN Security Council and the US".

Such acts have earned Japan

SOCCER

April 25 advances to AFC Cup inter-zone finals

The 2018 AFC Cup games are going on in the gaze of football fans.

Group league and regional additional matches are already over and the games are now at the inter-zone semifinal stage.

April 25 of the DPRK and the Home United of Singapore played their second leg of the semifinals at Kim Il Sung Stadium in Pyongyang on August 28.

Home United has rich international experience including its entry in the semifinals of the AFC Cup in 2004 and has so far taken part

in the games on ten occasions.

On the other hand, it is the second time for April 25 to enter the games and it won the East Asian regional competition of the games last year.

The DPRK team beat the Singaporean opponent 2-0 in the first-leg away match on August 21.

In the second leg that started with April 25's kick-off, both teams launched into fierce offensive from the outset by drawing on their experiences.

In the 19th minute Home United's No. 8 opened the scoring with a sudden shot.

It was soon followed by the



A scene from the soccer match between the DPRK's April 25 and Singapore's Home United as part of the 2018 AFC Asia Cup inter-zone semifinals.

equalizer April 25's No. 11 Om Chol Song scored by taking a corner kick.

The second goal of the DPRK was made by No. 13 Rim Chol Min's volley shot in the 30th minute and the third by a good combination of players in the 39th minute.

Just before the first half was over, Om Chol Song was given a penalty kick as a Home United's player committed a leg trip in their penalty area. The score gave Om a hat trick.

April 25 that continued to take the initiative in the second half intensified pressure on the opponent by pushing its defence line to the midfield.

Holding sway throughout the second half, it notched up goals in succession in the 49th, 61st, 65th, 79th and 84th minutes by dint of lightning and fierce attack.

As a result, the match ended in the April 25's 9-1 win.

The DPRK team which took an 11-1 lead in total has qualified for the inter-zone finals of the AFC Cup.

By Jong Tang Song PT

GAMES

Athletes successful at Asian Games



Rim Jong Sim lifts the barbell to win the 75 kg category.

DPRK players have achieved good results in the 18th Asian Games.

Choe Jon Wi triumphed in the 77 kg category of men's weightlifting by snatching 155 kg, jerking 193 kg and lifting a total of 348 kg.

Kim Hyo Sim won the 63 kg category of women's weightlifting by snatching and jerking 113 kg and 137 kg respectively and lifting a total of 250 kg.

And Rim Un Sim snatched 109 kg and jerked 137 kg to win the 69 kg category with a total lift of 246 kg, 13 kg more than the runner-up.

Kim Kuk Hyang also clinched the over 75 kg category title of women's weightlifting by snatching 126 kg, jerking 165 kg and thus lifting a total of 291 kg.

And Rim Jong Sim, the world's weightlifting ace,

claimed the women's 75 kg title by lifting 116 kg in snatch, 147 kg in jerk and 263 kg in total, which is 26 kg more than the runner-up, in total.

Kim Su Jong won the floor exercises in women's apparatus finals of the artistic gymnastics and came second in the beam.

Pak Myong Won won the 10-metre running target mixed shooting with 384 points and took second place in 10-metre running target shooting.

Choe Hyo Sim finished runner-up in women's 63 kg category weightlifting and Jon Myong Song came third in men's 85 kg category weightlifting.

Meanwhile, Pak Yong Won and Kang Un Ju finished runners-up in the recurve archery mixed team event.

And Kim Hye Song came third in the women's marathon.

Compiled from KCNA

ICH

Traditional martial art highlights national stamina

Taekwon-Do is a martial art of defending oneself from his attacker with bare hands and feet. It is an element of precious cultural heritage associated with the spirit and soul of the Korean nation.

The ancestors loved martial arts from olden times. In the period of Koguryo Kingdom which promoted the militaristic spirit, martial arts called Subak and Thaekkyon originated and had ever since developed with Pyongyang as a hub.

Subak means striking with hands and Thaekkyon kicking the shoulder.

Thaekkyon that continued to evolve throughout the period of feudal Joson dynasty and later on was developed into Taekwon-Do by Korean martial artist Choe Hong Hui.

In the term Taekwon-Do,

"Tae", "kwon" and "Do" mean heel, fist and culture of mind respectively.

Choe named it thus in the meaning that the martial art took over from the punching and kicking techniques used by the Koreans historically.

Taekwon-Do helps the practitioner cultivate strength and ability to defend himself and bravery, agility and patriotic mind as well.

Its technical structure consists of main movements, patterns, sparring, practice and self-defence.

Main movements amount to more than 3 200 individual ones which are used for attack and defence.

A pattern is a sequence of movements carried out along the fixed track according to certain principles and purposes

as well as a constituent unit to execute attack and defence against an imaginary opponent in changing circumstances. There are 24 patterns in all and practitioners acquire designated patterns in keeping with their level and dan, or grade.

Sparring is the application of technical movements for attack and defence gained by practising main movements and patterns. It is classified into prearranged, semi-free and free sparring.

Self-defence involves techniques for defending oneself from surprise attacks.

Practice is a process of the culture of mind and physical training.

All the technical components of Taekwon-Do are closely related and enable practitioners to train both technically and physically in a scientific way.

Taekwon-Do helps them build up their bodies and develop strong physical power and technique to defend themselves, as well as such qualities as perseverance, agility and fortitude.

Technical ranks of practitioners are divided into 10 levels and 9 dan, which are identified by their uniform and title.

The technique holders from level 10 to 1 are called trainees and wear white band or red band with a black stripe.

First-to-third-dan practitioners are called assistant instructors



Children practise Taekwon-Do movements.

