

NOROO



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NOROO

"BLAZING A NEW TRAIL INTO THE FUTURE"

Dear NOROO Family Members,

A new year has dawned. I wish all of you and your family great health and happiness throughout the year.

NOROO will mark its 71st anniversary in 2016. It now stands at a cross-roads. NOROO is challenged to further boost its competitiveness in the domestic market while significantly expanding its overseas presence throughout 2016. To that end, all NOROO employees are joining forces to reassess the company's existing growth strategies from the perspective that the company is about to launch its business from scratch. They are also fully committed to doing their very best in their respective positions to fulfill the company's new business expansion strategies.

Looking back, NOROO made improvements in its profitability in 2015 although it fell a bit short of its target for revenue growth during the year due to increasingly difficult business environment. It is quite encouraging that the company is registering positive results as a result of its consistent efforts to make improvements over the past few years in addition to falling raw material prices. It is my great pleasure to conclude that in 2015 NOROO made outstanding business achievements by fulfilling its potential under the banner of "Rock Solid NOROO Advances to the Future." I would like to take this opportunity to express my sincere appreciation to you for all your hard work during 2015.

Looking ahead, the outlook for our customer industries in 2016 does not look so bright. Many of our group's customer companies are struggling to bolster their competitiveness at home and abroad. Now it is time to view the whole of East Asia as a single economic bloc. We have to set up new business growth strategies from the ground up and take bold measures to implement them successfully.

We are challenged to further broaden our perspectives, forge marketing strategies customized for the reality of each market, and develop and supply optimized products and services for the individual market. Let us not

forget that our experiences in the Korean market can become a reference point but they may also prevent us from thinking outside the box at the same time. No matter where we advance, we have to carry out thorough analysis of not only the purchase power but also the cultural backgrounds and customs of the customers in each overseas market and implement market involvement strategies optimized for every individual market.

It is my great privilege to declare the phrase "Blazing a new trail into the future" as NOROO Group's vision for 2016. The phrase is the centerpiece of NOROO Way, the management philosophies of the NOROO Group founder. To cope with radical changes transpiring in business and market environments, we must be ready to change everything and equip ourselves with the challenging spirit and courage to attempt anything. We have accumulated top-tier technological knowhow in paint and synthetic resin for more than 70 years. It is time for us to expand into the rest of Asia including China while creating new growth engines in the agriculture and life industry through expeditious establishment of foundations for the industry.

Before concluding my remarks, let me express my deepest gratitude to the labor unions of NOROO Group, particularly Park Yeon-soo, chairman of the labor union of NOROO Paint & Coatings Co., Ltd.; Park Tae-hyun, chairman of the labor union of NOROO Chemicals Co., Ltd.; Lee Ji-heng, chairman of the labor union of NOROO Automotive Coatings Co., Ltd.; and Ryu Do-yun, chairman of the labor union of NOROO BEE Chemical Co., Ltd. as well as all other labor union leaders and members. I highly appreciate their earnest efforts to build a new win-win labor culture in the company despite numerous difficulties.

Once again I wish all NOROO employees and their family members plenty of good health and happiness throughout 2016.

4 January 2016
Chairman **Han Young-jae**

“世上原本没有的路,由NOROO来开拓!”

NOROO家族的各位成员，2016年已经到来，在此祝愿大家家庭幸福，身体健康!

今年是NOROO成立第71年，可以说公司正处于发展的转折点。为进一步强化国内市场竞争力，深化海外市场发展，我们要重新审视公司发展战略，在各自岗位努力工作，恪尽职守。

去年的企业环境并不乐观，虽然我们没有达到预期的销售目标，但收益性有所提高，这是数年间不断努力的结果。回顾2015年，我们在“根深蒂固的NOROO向着未来前进”的旗帜指引下，发挥NOROO潜力，取得了不错的成绩，在此向大家的努力表示衷心的感谢!

2016年韩国的前方产业前景并不乐观，我们的很多客户在内需市场和海外市场强化自身竞争力时遇到了重重困难。东亚经济一体化也使得我们需要重新树立并积极实行新的事业发展战略。开拓视野，树立适合当地市场的营销战略，开发并提供配套的产品和服务。虽然韩国市场的经验可以参考，但我们要时刻警惕不要被固定观念所束缚。我们要透彻了解和分析当地的文化、购买力和习惯等市场特性，制定并运用有针对性的市场战略。

2016年，我把公司的经营指标定为“世上原本没有的路,由NOROO来开拓!”。为积极应对企业 and 市场环境的

急速变化，我们需要不断改变和挑战的精神和勇气。以过去70年积累的涂料和树脂技术为基础，在积极开拓包括中国在内的亚洲市场的同时，尽快构建农业生命科学新兴产业的框架，蓄积新的生长动力。

最后，向在艰难环境中始终以发展劳资相生文化为己任，不遗余力地付出努力的工会朴延洙(音译)主席、NOROO化工工会朴太玄(音译)主席、NAC工会李智兴(音译)主席、NRB工会柳度岩(音译)主席以及执行部和全体工会职员表示衷心的感谢!

最后祝愿大家在新的一年里身体健康，家庭幸福!

2016年 1月 4日
会长 **韩荣宰**



02 **New Year's Message** Blazing a New Trail into the Future
世上原本没有的路,由NOROO来开拓!

Special Theme **the Star**

06 **Essay** Descendants from the Stars
来自星星的你们

08 **Information** Stars, and All Sorts of Space Stories
星星，关于宇宙中形形色色的故事

NOROO People

12 **Focus on NOROO I** Innovate with Color! 2016 Color of the Year
2016 NOROO International Color Trend Show
用色彩实现革新! 2016年的流行色
2016 NOROO国际色彩潮流秀

16 **Color of the Year** 2016 Color of the Year, Rose Quartz and Serenity
2016，今年的流行色彩蔷薇粉和静谧蓝

18 **Focus on NOROO II** Our Beautiful Natural Face
NOROO's 70th Anniversary Photo Exhibition
我们美丽的真容
NOROO 70周年纪念摄影展

22 **Global NOROO** Cutting Edge Greenhouse in Kazakhstan,
Cultivating the Future
哈萨克斯坦的高科技温室，栽培未来

24 **News Briefing**

27 **Behind Cut**

Toward the stars

Throughout history, stars have always captivated our hearts. While our ancestors looked up to the stars to predict the future, modern people look through telescopes and fire spacecraft off into space, utilizing technological developments, and strive for a closer look at the stars. Yet, the vastness of outer space still remains a mystery to mankind. Perhaps that is why we become more and more fascinated by the stars and the universe.

朝着星星

从古至今，星星为何如此牵动我们的心呢？如果说古人是看星星辨别方向、占卜未来、创造神话，那今天的人类则正利用科学的发展架起望远镜、发射宇宙飞船、积极地走近星星。即便如此，广阔无垠的宇宙仍然是未知的世界，因此我们也更为宇宙和星星所倾倒。





Descendants from the Stars

Scientists seek to learn about the origins of mankind through studying the stars. They believe that the earth on which we set our feet on, as well as the atoms that make up our bodies, were created from the birth of the universe. To think that all human beings are linked to the vastness of outer space in such a way, ordinary people don't look so ordinary after all. Each and every one of us may have come from a star, like the Little Prince from Asteroid B-612 or Superman from planet Krypton. Stars allow for our imaginations to have no bounds.

来自星星的你们

科学家们在宇宙中寻找生命的起源。我们居住的地球在宇宙的诞生中形成，构成我们身体的原子也来自于那里。想到那广阔无垠的宇宙与我们如此紧密相连，平凡的人看起来也都不再平凡，因为说不定我们都是《来自星星的你》中的都敏俊、都是来自B612的小王子，亦或是来自氦星的超人。诸如这般，星星使我们能够展开无限想象。

WONDERFUL NIGHT SKY

“If you know what's it's like to sleep under the stars at night, you'll know that, when we are normally asleep, a mysterious world awakens in the solitude and silence”. In the novel, The Stars, by Alphonse Daudet, the shepherd ponders as he sits alongside the beautiful Stephanette while looking at the stars. To calm a frightened young lady who unexpectedly ends up having to spend a night in unfamiliar mountains, the shepherd tells her the names and tales of the stars in the sky as he points to them, from the Milky Way to the Great Bear, Orion and Sirius. As his tale arrives at Shepherd's Star, the lady puts her head on the shepherd's shoulder and falls asleep. The shepherd lends his shoulder to the most beautiful and shiny star and stays up all night under the bright stars that travel silently throughout the sky. Many of us experience a similar sense of wonder and excitement as the shepherd felt under the stars. In the past, people thought of the night sky as a notebook where the gods sketch their future plans. Today, people analyze the components and the types of stars through the use of telescopes and satellites. The fact that stars still remain wonderful and mysterious to us is a relief. If we knew everything about the stars, 'descendants from the stars' would no longer exist.

MAN AND STARS

Mesopotamian shepherds and herdsman were the ones who created zodiac signs. Stars have always been a target of observation throughout history. Astrologers observed the movements of the stars, studied their patterns, and used them to tell the future. Astrology became a double-edged sword and was used by powerful men to eliminate political enemies or justify their status. The stars served many uses in everyday life as well; they taught people when to plant seeds and how to grow them. They also allowed hunters to estimate the movements of animals and served as a compass in sailing and voyages. During the 18th and 19th centuries, astronomical observation and astrology became a popular pastime. Dramatic events occurred in the 20th century, the era of the Cold War, including competition in space science and lunar exploration. However, along with the development of science, cities grew larger and the skies became brighter, making it difficult for us to see the stars. Today, although we are flooded with an abundant amount of scientific information, many people are unfamiliar with and know less about the stars than the people from the past.

US FROM THE STARS

Recently, the Korean TV drama, My Love from the Star, made a big impact. In the theaters, many top grossing movies, including The Martian, Interstellar, and Gravity, conveyed the human instinct to travel through space and return to earth. Present-day films set in space probably began with the movie, Contact, a 1997 American film based on the novel of the same title written by Carl Sagan, a renowned astronomer. In contrast to surreal plots that may exist in science fiction movies, such as alien invasions and space wars, these movies bring their viewers to question whether such events may really happen in real life someday. Aliens may exist somewhere in the vast universe and may be having space wars with each other, but what humans need to protect is our own planet Earth. How about going out on the terrace tonight to greet the starlight that visits our planet? Your presence may help the starlight that travelled a million light years through the halo of light pollution that encases cities to feel a bit less lonely.

惊奇的夜空

“倘若你曾在美丽的星光下通宵熬夜，那你定然知道当所有人都睡去时，另一个神秘的世界会在孤独与静寂中醒来。”阿尔封斯·都德的小说《星辰》中，牧童与少女斯泰帕奈特并排而坐，望着星空静静思考。为了安抚少女在陌生的山中度过意外夜晚的恐惧，牧童指着美丽夜空向她讲述星星的名字与故事。从银河开始，到大熊星座、猎户座和天狼星的故事讲述到牧童星时，美少女将头轻靠在牧童的肩上进入了梦乡。把肩膀借给最美丽、闪耀的星星后，牧童在悄然运行的灿烂星辉下度过了美好的夜晚。我们在星空下体验着和牧童一样的惊奇与悸动。古人认为星空是诸神书写未来计划的留言板，进入现代人们在宇宙中架设望远镜、发射人造卫星、分析星星的成分与种类，无论古今其敬畏与美丽都依然如故。对宇宙了解的越多未知的反而就越多，这让我们更加觉得夜空与星星的神秘。或许无知才是幸运的，因为倘若全部都了解了，那“来自星星的你们”将不复存在。

人类与星星

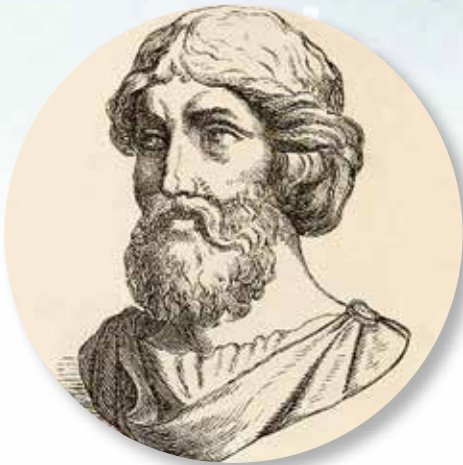
星星从很久以前就是人们观测的对象。持续观察星星的移动、将其规则与地球的变化联系起来的人是占星学家，他们发挥了预知未来的能力。这种占星学成了权贵们的双刃剑，他们利用占星除掉政敌或维护自身的地位。星星在实际生活中也很有用，它告诉人们何时播种、何时栽种，在狩猎采集社会中用于预判动物的移动，还是人类航海与移动的指南针。18世纪至19世纪天体观测与天文学曾作为消遣活动而盛行一时。而20世纪发生了冷战时期的宇宙科学竞争与探月等具有划时代意义的事件。但随着科学的发展，城市逐渐扩大、变得更加明亮，在日常生活中看到星星反而变得困难了。虽然现在涌现了众多有关星星的科学知识，但事实上我们反而不如古人更了解、更熟悉星星。

去过星星的我们

虽然近来电视剧“来自星星的你”人气极高，但电影院中似乎“去过星星的我们”更具人气。近来颇火的SF电影《火星救援》、《星际穿越》、《地心引力》等均蕴含着去往宇宙的人类逆境与想要回到地球的本能。其开始似乎是1997年将著名天文学家卡尔·萨根的原著拍摄成电影的《超时空接触》。与令人想起科幻电影画面的外星人入侵、星际战争等相比，这些电影使人产生“那种事说不定什么时候真会发生”的现实想法。宇宙宽广无垠，某处可能真的生活着外星人、外星人之间也可能发生着战争，但我们最终必须生活和守护的地方唯有地球。今晚，走到阳台去看看投射到地球的星光如何？让那些飞驰几百万光年穿透光与大气污染抵达的星光不再寂寞。

Stars, and All Sorts of Space Stories

Do you think you can see the stars only at night? Actually, the sun that we see during the day is also a star. The sun is only one of the 500 billion stars that belong to our galaxy. Outer space contains a seemingly endless amount of galaxies and has been constantly expanding since being formed after the Big Bang. Thus, we don't know where it all ends. These facts were discovered through tenacious observations, discoveries, claims and their modifications throughout history by philosophers, astrologists and astronomers since the Greeks started studying outer space before the Common Era. This article will offer all sorts of stories in the vast world of astronomy.



THE BIRTH AND DEMISE OF A STAR

How is a star created? Outer space contains hydrogen and helium clouds that formed after the Big Bang. The clouds gradually merge together and start rotating over about a billion years. These balls of gas and dust are called nebula. When the hydrogen atoms in the center of the nebula are compressed into a high density, it becomes a blast furnace, and when its temperature reaches ten million degrees, a nuclear fusion reaction occurs and forms light. This is how a star is created. Many stars that are formed all at once is called a star cluster. When the expansion energy and the contraction energy of the new star become balanced, the star becomes stable and ages while creating nuclear fusion of hydrogen and helium. A star's life is determined by its mass; the sun is estimated to last for about 10 billion years. A star that has reached the end of its life inflates according to its size and either returns to being a nebula or creates a black hole through a supernova explosion.

星星的诞生与消亡

星星是如何诞生的呢？大爆炸后充满宇宙空间的氢和氦云经过10亿年时间，慢慢地聚集、凝结，之后开始旋转且速度越来越快。这些凝结的气体与灰尘团称为星云。星云中心部分的氢原子被以高密度压缩后形成高温高压的熔炉，温度达到一千万度后会发生核聚变反应并产生光，这就是星星的诞生，同时形成的多个星星被称为星团。新诞生的星星的膨胀能量与重力引发的收缩能量如达到均衡，星星将能在长时间内以稳定的形态存在，依次使氢和氦发生核聚变反应、年龄逐渐增长。星星的寿命由质量决定，据说太阳将存在100亿年左右。寿命耗尽的星星根据其大小不同，可能会膨胀、重新回到星云，也可能会因超新星爆炸形成黑洞。

CREATED BY PYTHAGORAS

Where did the five-pointed star shape come from? Who designed the shape of the shining star? There is an interesting video on this topic on Naver TV Cast. The person who suggested using \star to represent a star was the ancient Greek mathematician, Pythagoras. Pythagoras enjoyed looking at the stars at night and thought of outer space as being the most beautiful and harmonious place. He was the one who first referred to the universe as 'cosmos', which means harmony. Pythagoras considered an pentagon to be the most perfect and stable shape, with 1 representing god, 2 and 3 representing male and female, and 5, the sum of 2 and 3, as love and marriage. He then connected the points of a pentagon and created the star shape. What's amazing is that the golden ratio of 1:1.618 can be found in this shape.

毕德哥拉斯创造的星星

我们经常勾画的星星模样开始于何处呢？是谁从闪耀光彩的星星模样中摘引的呢？您能在NAVER TV Cast中看到关于这个问题的有趣视频，据说提议用 \star 模样代表星星的是古希腊数学家毕德哥拉斯。毕德哥拉斯喜欢观看夜空的星星，他认为宇宙是最美丽、最和谐的地方，他还是将宇宙称为具有和谐之意的cosmos的人。他研究了宇宙中最完美、美丽的模样，1代表神、2和3代表男人和女人、2和3之和5代表爱与婚姻，他认为五角形是最完美、稳定的形状，将这个五角形的顶点连接起来就形成了星星模样。令人感到惊奇的是这个星星中能够找到1:1.618的黄金分割法则。用地球的黄金比例创造的星星模样，是不是感觉更加美丽了呢！

星星，关于宇宙中形形色色的故事

只有晚上才能看到星星吗？事实上白天我们也能看到太阳这颗星。太阳是银河系中5000亿颗星星中的一颗。宇宙中有无数个这样的银河，而且开始于大爆炸的宇宙现在也在持续膨胀，无法获知其尽头。自公元前希腊人开始研究星星以来，经过哲学家与占星学家、天文学家的不断观测与发现、主张与修改，天文学最终发展到了今天。您要听一听从庞大的天文学世界中信手拈来的形形色色的故事吗？



SHOOTING STAR

Shooting star, also known as a meteor, is a trace of dust particles that enters the Earth's atmosphere at a fast speed and burns immediately. There's a saying that wishing upon a shooting star makes the wish come true. As easy as it sounds, this can be fairly difficult. In order to spot a shooting star, one will need to relentlessly stare at the sky since shooting stars tend to disappear in less than two seconds. Some meteors leave meteorites after they burn. Surprisingly, an average of 100 tons of meteorites fall on the Earth every day, which amounts to 40 thousand tons a year. They mostly fall into the ocean and that is why we rarely spot them. In 2014, a 34 kg meteorite was found in Jinju, Gyeongnam Province. The government evaluated the price of the 4.5 billion-year-old meteorite as 350 million Korean won. In some unlucky cases, the debris that humans discard in space returns to us in the form of a shooting star. The number of orbital debris created by shooting satellites amounts to a whopping 600,000, which weighs more than 6,000 tons.

流星

流动的星星，俗称流星，流星是在宇宙空间中飘荡、快速划过地球大气层、在瞬间燃烧的灰尘粒子的痕迹。据说看到流星时许愿，愿望就能实现。若想如此，那就必须注视天空、直到流星划过时为止都要不断重复许愿，因为流星最长在2秒内就会消失不见。有些流星燃烧后会留下陨石，每年会有4万吨的这种陨石落在地球上，每天平均多达100吨，数量极为惊人。因为这些陨石主要落在占地球大部分的海洋中，所以才不常见罢了。2014年在庆南晋州发现了一块重34kg的陨石，曾一度成为热议话题。政府为这块45亿岁的陨石定价3亿5千万韩元。但倘若运气不好，人类留下的太空垃圾也会化为流星落下。据说人类发射人造卫星形成的太空垃圾多达60万个、共6,000吨。



B-612 OF THE LITTLE PRINCE

The planet where the sun sets 43 times a day has two active volcanoes and one dormant volcano, and grows small flowers and baobab trees. The planet where the Little Prince and the rose that he loves exists: Planet B-612. Does this planet really exist? According to the novel, B-612 was discovered by a Turkish astrologist in 1909. However, no asteroid with the same name was found in that year. Scientifically, the planet should most likely be located in the asteroid belt between Mars and Jupiter. Many asteroids of varying sizes are scattered in this area and a vast amount of them are small enough for the Little Prince to see the sunset. I wonder if the Little Prince returned safely to his planet. Is he getting along well with the rose? As the Little Prince said, the desert is beautiful because, somewhere, it hides a well. The night sky must be beautiful because, somewhere, it hides B-612.

小王子的B612

每天能看到四十三次日落的星球、有着两座活火山与一座休眠火山的星球、花朵与猴面包树种子生长的星球、小王子与他爱的玫瑰所在的星球，这就是B612。但B612是实际存在的星球名吗？小说中这颗星星是土耳其的某天文学家在1909年发现的，但实际上当时发现的小行星中并没有这个名字。倘若利用科学手段寻找B612的位置，那么大部分小行星聚集的火星与木星轨道间的小行星带似乎是最为合理的所在。这里散落着大大小小的行星，也有很多小王子能够看到那么多次夕阳的小行星。为照看玫瑰回来的小王子过得还好吗？小羊与玫瑰相处得融洽吗？像小王子说的那样，沙漠之所以美丽，是因为在沙漠的某个角落隐藏着一口井，可能正因为B612漂浮在某个角落，夜空看起来才更加美丽吧。



14TH CENTURY KOREAN STAR MAP

Do you know that although current constellations are based on the western system, Korea has its own star chart? Korean constellations can be found in its 14th century Korean star map Cheonsang Yeolcha Bunyajido, the second oldest astronomical chart in the world. In 1395, the map was engraved in stone based on the rubbing of the Goguryeo constellation sign. It includes 293 constellations, which is more than three times that of the 88 in the western constellation, and the Milky Way, and displays 12 zodiac signs that represent each direction. The Korean star map can also be found in our wallets. If you look at the back side of the new 10 thousand won bill issued in 2007, there is a drawing of a celestial globe and the 1.8 m optical telescope of the Korea Astronomy and Space Science Institute. The drawing in the background is the Korean star map. Don't forget the Cheomseongdae, which was used to observe stars during the Silla Dynasty. Cheomseongdae is the oldest observatory in Asia that exists until this day.

天象列次分野之图

现在国际上广泛使用西方星座系统，但你知道韩国也有固有的星座吗？我们可以在世界上历史第二悠久的天文图“天象列次分野之图”中清晰地看到韩国的星座。以太祖李成桂时代（1395年）高句丽星座图拓本为基础刻在石头上，绘制了多达293个星座（西方星座数为88个，是西方星座数的3倍以上）与银河，细致地标注了代表各方向的12支等。事实上此天象列次分野之图在钱包中也能看到。2007年发行的新万元纸币背面绘有浑天仪和韩国天文研究院普贤山天文台1.8m光学望远镜，其后面的背景就是天象列次分野之图的拓本。说到天文学，当然不能忘了新罗时代观测星星的瞻星台哦，该天文台是东方现存观测台中历史最悠久的观测台。



BEATLES TO THE STARS

On February 4, 2008, NASA fired the Beatles' song, 'Across the Universe', to Polaris of the Little Bear in celebration of its 50th anniversary. Three huge antennas were used to transmit the song at a speed of 300,000 kilometers per second. The song is estimated to arrive at the star after 400 years. February 4th was also the 40th anniversary from when the song was first recorded. "Send my love to the aliens," Paul McCartney told NASA, while Yoko Ono, John Lennon's wife, commented, "I see that this is the beginning of the new age in which we will communicate with billions of planets across the universe". In 1974, a message was shot to a globular star cluster M13 some 25,000 light years away from the Arecibo Observatory in Puerto Rico. This message contained the numbers one to ten, the height of a human being, Earth's population and the solar system. Will someone hear the Beatles' song after 400 years at Polaris? What will our planet look like in 50,000 years?

给星星送去披头士

2008年2月4日，美国国家航空航天局NASA（National Aeronautics and Space Administration）迎来了创立50周年，朝小熊星座的北极星发射了披头士的《穿越苍穹（Across the Universe）》。利用3台巨大天线发射的歌曲以每秒30万千米的速度翱翔太空，预计将在400年后到达北极星。2月4日也是迎来录制该歌曲40周年的日子，对此，保罗·麦卡特尼说“希望这首歌能给其他星球的人带去问候”，约翰·列侬的夫人小野洋子说“感觉与数十亿星星交流信息的新时代已然开始”。在此之前，1974年波多黎各的阿雷西博电波天文台也曾向距地球2万5千光年的M13球状星团发送过信息，信息包括从1到10的数字、人的身高、人口数、太阳系等内容。音乐到达北极星的400年后，北极星的某人会听到这首歌吗？5万年后地球会成为怎样的星球呢？



THE SKY'S ADDRESS, ZODIAC SIGNS

Countless stars that light up the night sky are hardly visible in the cities due to air pollution. In this case, apps can help you find stars you can't see. Google's star map identifies the location of your smart phone and displays the name of the star in your bearing and its actual location as well as planets. Users can also view the location of a star at a certain time. Apps such as Star Walk 2 and Constellation Map present constellations in beautiful drawings and is useful for teaching children about stars. If you would like to take a closer look at the stars, visit the NASA website at www.nasa.gov or the KASI website at www.kasi.re.kr which displays a diverse range of astrophotography. Also, visit Heavens Above at www.heavens-above.com to get a three-dimensional view of the current location of the International Space Station (ISS). If you want some stars in your living room, you can consider buying star lighting for a home planetarium. The moment that you turn the power on, your room will be filled with stars.

天空的地址，星座

夜空中洒满了无数的美丽星星！但在城市中因为光污染我们已很难找到几颗。每当这时，应用软件就能帮我们找到肉眼看不见的星星。谷歌星空利用GPS掌握智能手机的位置，显示方位与实际存在的星星名字以及太阳系行星。选择想要的时间后就能看到该时间的星星位置图。Star walk 2与星座表应用软件将星座显示为美丽的图画，向孩子说明星座时非常有用。倘若想在近处观看星星，请访问美国航空航天局主页（www.nasa.gov）或韩国天文研究院主页（www.kasi.re.kr），这里公开着今天的宇宙照片、本月照片等各种各样的天体照片。进入Heavens Above（www.heavens-above.com）后能够立体地观看国际空间站（ISS）的现位置。倘若想把星星带入家中，那星星灯或家庭用天象仪将是不错的选择。在黑暗中打开电源的瞬间，房间将成为另一番天地。



STAR WARS, THE BATTLE OF THE STARS

Star Wars: Episode 7 recently hit theaters and attracted many viewers. The Star Wars series first opened in theaters in 1977 with Star Wars: Episode 4 - A New Hope and has maintained its popularity over the past 40 years. George Lucas, the creator, writer and producer of the series stated that, "I was very interested in creating a modern myth to replace the Western". Before Star Wars, science fiction movies were underrated and regarded as B movies. Lucas successfully conveyed the confrontation of good and evil inside a grandiose narration with magnificent effects through his film and gained enthusiastic support from viewers of all ages as well as enhancing the cinematic quality of science fiction movies. Watching a movie from one's childhood as an adult is a fascinating experience. In addition to the 8th chapter in the Star War saga that is currently being filmed, let's also be sure to look forward to the ninth episode, which is planned to also start production in the near future.

星星的战争，星球大战

《星球大战7》在不久前上映并成为了热议话题。《星球大战》系列自1977年《星球大战4－新希望》首映以来，保持了近40年的高人气。撰写星球大战的故事并担任导演、指挥后期制作的乔治·卢卡斯解释作品的背景时说，“我想创造现代童话，像曾经风靡一时的西部片那样，我们需要神话”。在此之前，SF电影被归为B级，但他在《星球大战》的宏伟叙事中保持了善与恶对立的单纯性，为作品注入了华丽看点，赢得了成人与儿童的广泛喜爱，提升了SF电影的作品性。儿时乃至成年后一直持续观看本电影无疑说明了它极富魅力。在系列7以后，已初步确定拍摄至系列9的计划，以后的电影也令人充满期待。

Innovate with Color! 2016 Color of the Year

2016 NOROO INTERNATIONAL COLOR TREND SHOW

The 2016 NOROO International Color Trend Show, celebrating its fifth anniversary this year, was held at the Art Hall of Dongdaemun Design Plaza on December 10, 2015. The showroom inside Dongdaemun Design Plaza created the impression of stepping into a space aircraft carrier or being sucked into a pure white vacuum tube. The announcement banners stood out prominently and the colors on the event stage, made up of curved surfaces in various shades of cream, popped out even more vividly. This year's Color Trend Show was indeed a magical banquet of brilliant colors.

用色彩实现革新! 2016年的流行色

2016 NOROO国际色彩潮流秀

2016年 NOROO国际色彩潮流秀于2015年12月10日在东大门设计广场艺术大厅举行，今年已经是第五次举办该潮流秀。走进东大门设计广场，我们仿若进入了一架航空母舰，亦或有种被纯白真空管吞噬般的感觉。宣传潮流秀的横幅分外显眼，舞台由乳白色曲面构成，斑斓的色彩使舞台更显生机，本次色彩潮流秀可谓名副其实的色彩盛宴。

WE CREATE COLORFUL LIFE

The hall was packed on the day of the event as participants gathered one after another, reflecting the industries' great interest towards the NOROO International Color Trend Show (hereinafter called 'Color Trend Show'). After the host announced the commencement of the event and introduced the theme 'We Create Colorful Life' along with the explanation that it will be about the colors of daily life, the adorable NOROO (the company's name also refers to 'roe' deer in Korean) character appeared on the screen and all eyes were fixed on it. The animation genially explained the history of NOROO and its various accomplishments finishing off with the slogan 'We Cover All,' which left a lasting impression on the audience. Afterwards, President Kim Soo-kyong of NOROO Paint & Coatings came on stage and remarked, "I hope this event becomes an opportunity for color experts to share their insights and gain new inspiration and ideas, ultimately benefitting various businesses. NOROO works for a bright future of the design and color industry of Korea." And then, the show started, leading participants into the world of the colors of 2016.

We Create Colorful Life

活动当天参与者陆续聚集，现场座无虚席，这无一不代表着业界对NOROO国际色彩潮流秀（以下简称“色彩潮流秀”）的关注与热切期待。活动一拉开帷幕，主持人介绍说“本次活动首先会以“We Create Colorful Life”为题讲述所有日常的色彩”，紧接着可爱的NOROO人物角色出现在画面上，吸引了所有人的目光。动画影像以轻松的氛围向大家展示了NOROO的历史与各种业绩，“We Cover All”的标语给大家留下了深刻印象。紧随其后上台的是NOROO涂料股份有限公司的金守经社长，金社长送上了简短的问候“衷心希望各位色彩专家能够通过本次活动分享意见、获得新灵感，对各位的业务有所帮助。NOROO将为引领韩国设计与色彩产业的在座各位的未来加油”，随即以2016年的色彩迈出第一步的潮流秀正式开始。

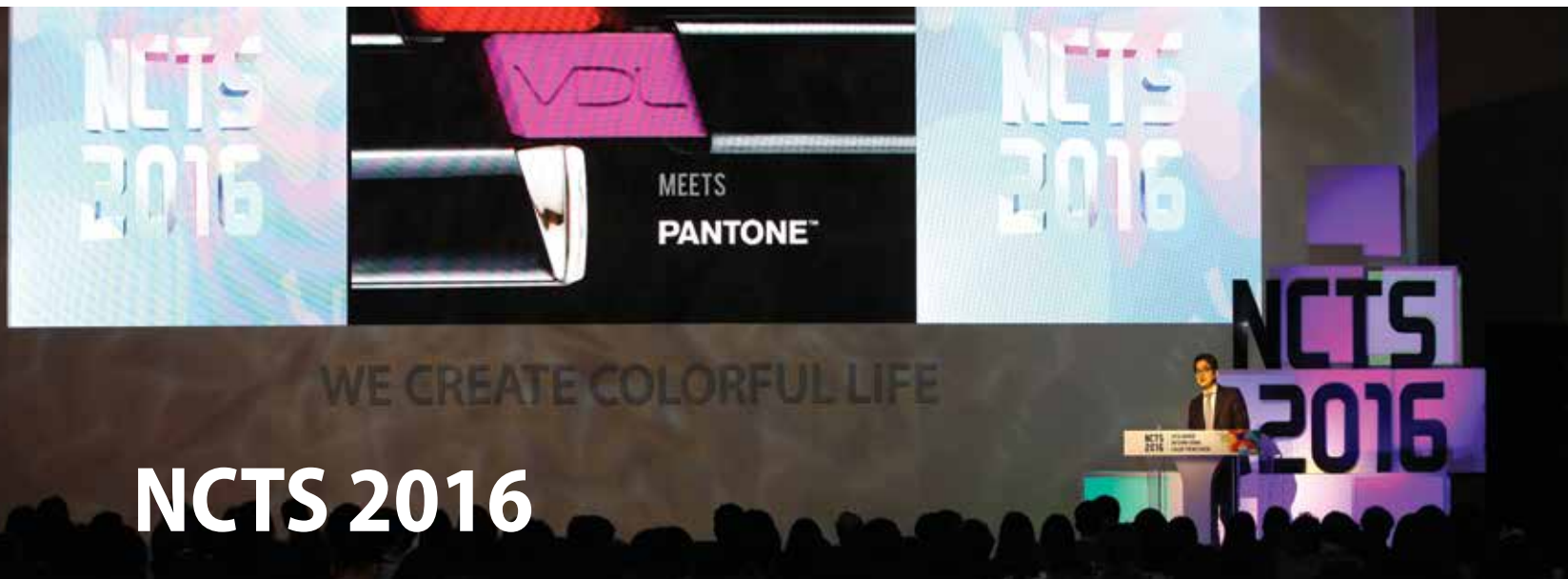
COLOR EMPOWERS DESIGN

"What is design, what is color?" Dean Nah Ken of the International Design School for Advanced Studies (IDAS) at Hongik University was the first speaker for the lecture series titled 'Color and Design Insights.' Through attention-grabbing eloquence and captivating support material, he emphasized the significance of a corporate culture that supports the creative ideas and techniques of employees in order to achieve innovation. He asserted that the Color Trend Show will become an important stage for designs that are in a nebulous state. Team Leader Lee Nam-hui, the second lecturer, proposed the prospects for the fashion industry according to the color trend forecasts of CFT (Korea Color & Fashion Trend Center) with images and videos as visual aids. LG Household & Health Care announced its collaborative venture with Pantone through a booth for makeup and cosmetics brand VDL at the event venue. The results of this successful collaborative venture, showcased at the event, reaffirmed the power of colors.

色彩，带给设计力量

“所谓设计、色彩究竟是什么呢？”以“Color and Design Insight”为主题抛出问题的弘益大学国际设计专门研究生院（IDAS）院长罗建是本次演讲的第一人。他以富有吸引力的口才和充满趣味的演讲内容强调“革新需要组织成员的创新精神、创意技巧以及承托这些的组织文化”，他还说道“色彩潮流秀将成为处于不明朗状态设计的重要一步”。第二位演讲人是CFT（Korea Color & Fashion Trend Center）组长李南熙，他以图片和视频形式提出了色彩动向引发的时装产业前景。活动现场LG生活健康通过专业彩妆化妆品品牌VDL的展台宣传与PANTONE的协力，以跨界合作的成功案例再次向世人印证了色彩的力量。





NCTS 2016

WE CREATE COLORFUL LIFE



2016 COLORS OF THE YEAR: ROSE QUARTZ & SERENITY

As the Color Trend Show progressed into its latter half, the event was really getting into full swing and the time to announce the 2016 color trend was getting nearer. Senior Researcher Kim Seung-hyeon of NOROO - Pantone Color Institute (NPCI) calmly proposed the 48 colors that will appeal to the senses of consumers in 2016 and 2017 and suggested ways to strategically utilize them based on his analysis of the trend of CMF (Color, Material, Finishing). This year's colors, which are gentle yet majestic, were created as samples with different surface treatment and displayed at the event venue so that participants could better understand their application.

Chief Consultant Leatrice Eiseman of Pantone Color Institute was the final speaker. As she recapitulated the colors of 2015 and was about to announce Pantone's 2016 color of the year, smartphone screens sent flashes from all quarters as attendants jostled to capture the moment on their phones. Rose Quartz, a graceful and warm feeling pastel pink shade, and Serenity, a sky blue color in the same tone, were finally unveiled to the public.

"After conducting numerous researches, it was concluded that in 2016, we need stable colors that are both sympathetic and well-balanced." Leatrice Eiseman's comment and the cumulative effect of the two colors that were superimposed on top each other reminded the viewer of "changing colors," which was defined by Professor Nah Ken earlier as the value of future colors. The concept was also in line with the consistent focus on 'harmonizing opposites' in NPCI's presentations. As participants got ready to leave after the event had concluded, you could catch glimpses of satisfaction on their faces. Eiseman's words, encouraging the audience to "take new initiative in your choice of colors" was as soft-spoken as Rose Quartz and Serenity. Thanks to the people who return home with that thought in mind, we expect that 2016 will become another year full of fresh new colors.

2016年度流行色，蔷薇粉 & 静谧蓝

活动下半场，现场的氛围愈加热烈，终于到了正式介绍2016年色彩潮流的时刻。NOROO & PANTONE色彩研究所 (NPCI) 责任研究员金胜贤分析了CMF (Color、Material、Finishing) 的潮流，提出了2016年与2017年将刺激消费者感性的48种颜色以及能够积极利用这些颜色的方案。将整体上都充满沉稳质感的这些色彩，在活动现场以各种表面处理的实际模型进行展示，使参与者能够轻松揣度出其灵活利用程度。

最后出场的是PANTONE色彩研究所的首席顾问莉雅翠丝·艾斯曼 (Leatrice Eiseman)，她概括了2015年的色彩并发布了2016年PANTONE的色彩，优雅温暖小清新的蔷薇粉 (Rose Quartz) 与同色调的梦幻般的静谧蓝 (Serenity)。

莉雅翠丝·艾斯曼介绍说“多项调查结果显示，2016年需要实现共鸣与均衡的稳定颜色”两种颜色可以彼此从一种无缝过渡到另一种，令人想起前面罗建教授所提及的具有洞悉未来色彩价值的渐变色彩，这与NPCI演讲中提到的“相反色彩的调和”也如出一辙。活动结束后，参与者们的脸上都露出了满意的表情。“衷心希望能在各位选择色彩时，带来全新的思考点”，莉雅翠丝·艾斯曼的建议如同蔷薇粉和静谧蓝般温柔，相信与会者定将以全新的色彩描绘填满崭新的2016年。



Color of
the Year
2016

&

PANTONE®

Rose
Quartz
13-1520Serenity
15-3919

2016 Color of the Year Rose Quartz and Serenity

Pantone decided to make a rather drastic change this year regarding its selection of the 2016 Color of the Year. It chose two colors instead of one: Rose Quartz and Serenity. The two colors of hazy pink and lucid blue are opposing colors in a similar tone, thus creating a fantastic harmony. “We perceive a richer feeling through viewing these two colors as a pair instead of separately. The sensation created by seeing these two colors can be summarized as balance, sympathy, passion and peace.” Leatrice Eiseman revealed the intention behind the colors for the first time at the 2016 NOROO International Color Trend Show in Asia.

2016，今年的流行色彩 蔷薇粉和静谧蓝

PANTONE公司在选出2016年流行色彩时果断做出了与往年不同的大胆尝试。PANTONE公司选择了蔷薇粉和静谧蓝两种颜色，遥远缥缈的粉红色和晶莹剔透的蓝色，两种颜色共同催生了梦幻般的和谐交融。“这两种色彩，让我们感受到了比单色更为丰富的感性。可从中感觉到均衡、共鸣、热情、和平”，2016 NOROO国际色彩潮流秀上，莉雅翠丝·艾斯曼（Leatrice Eiseman）首次在亚洲道出了其含义。

COLORS REQUIRED BY THE TIME

The Pantone numbers for the 2016 Color of the Year are ‘PANTONE 13-1520 TPX Rose Quartz’ and ‘PANTONE 15-3919 TPX Serenity.’ Rose Quartz refers to the gentle pink essence and Serenity refers to a state in which the sky and atmosphere is clear and peaceful. These two colors remind us of the sturdy precious stone that contains the warmth and transparency of the color pink and the clear blue sky in a tranquil condition. Together, they deliver the coziness of being embraced and the light comfort of being up in the air.

“Color delivers messages of sentiment,” said Leatrice Eiseman at the Trend Show. Which is why there had to be two colors. That was how Pantone created a message that would satisfy the trend of modern society as well as live up to the people’s expectations. 2015 was a year in which Korea was terror-stricken by horrible international news such as the spreading of MERS, IS terrors as well as the drastic increase in the number of refugees. Domestically, the word ‘Hell Joseon’ was coined to mock the reality in which individuals are left to fend for themselves without adequate support from the government or society. As same sex marriage was legalized in the United States and feminism became a hot issue, Koreans were invited to become more aware of sexual diversity and equality. The message that colors deliver in this day and age defined by a mixture of tension and conflict, unrest and resignation, change and hope, should be multilayered indeed.

COLOR RESPONDS WITH SENTIMENT

In a world where blue still defines masculinity and pink femininity, a similar tone of Rose Quartz and Serenity, overlapped with one another, smudging and crossing over, symbolizes sexual equality. Also, the two colors gently soothes the hearts of those who wish to protect their minds from the complicated reality. For those of you who are feeling nostalgic about the past, the colors will feel like a faded photograph from long ago.

At the Trend Show, Leatrice Eiseman explains that “Serenity soothes the mind and slows you down as if watching the clear blue sky and Rose Quartz adds warm passion and sympathy.” She thinks that these two colors deliver peace and balance at the same time. Viewing these colors makes us feel like we are sitting down by a seashore that has been warmed up by the sun and watching the sky that is gradually turning pink.

Since Pantone’s announcement of the 2016 Color of the Year, more products are being created in Rose Quartz and Serenity colors with cosmetics and fashion brands taking the lead. NOROO-PANTONE Color Institute also offers various services using 2016 Color of the Year. Last year’s Marsala created a sensation and had a huge impact on product sales, so companies are responding quickly this year as well. This means that the consumers are becoming more and more sensitive to the color trend of the year. It is expected that Pantone’s 2016 Color of the Year: Rose Quartz and Serenity will be used in various products across industries that will be released throughout the year.

时代，呼唤色彩

被选为2016年流行色彩的蔷薇粉的颜色编号为 “PANTONE 13-1520 TPX Rose Quartz”，静谧蓝的颜色编号为 “PANTONE 15-3919 TPX Serenity”。这里说的蔷薇粉是蔷薇石，静谧蓝指的是天空与大气清澈、平和、沉静的状态。这两种颜色正如其名，令人想起带有粉红温暖和晶莹剔透感的坚硬宝石以及稳定状态的蔚蓝天空，同时传达仿若被拥抱般的温暖与轻盈漂浮般的轻便舒适感。

莉雅翠丝·艾斯曼在潮流秀上说，“颜色传递感情信息”。所以PANTONE公司捕获的符合现代社会的潮流与大众期望的信息必须有两种。2015年，我们深陷于MERS的恐惧之中并在IS恐怖活动与难民激增等世界形势中深感不安。在韩国国内，仅强调个人努力的现实中产生了“Hell朝鲜”一词。随着太平洋彼岸传来同性婚姻合法化的消息、女权主义成为焦点，促使了人们对性多样性、性平等的觉醒。在这样一个充满对立与矛盾、不安与绝望、变化与希望的时代提出的颜色的含义将必须是多层次的。

色彩，以感性作答

在规定男性为蓝色、女性为粉色的社会中，蔷薇粉和静谧蓝以同等色调相互蔓延、晕染的形象象征性地表现了性平等。另外这两种颜色在复杂的现实中温柔地抚慰着需要手术心灵的人们。对于沉溺于过去乡愁的他们而言，这将仿若褪色老照片般成为遥远缥缈回忆的颜色。

莉雅翠丝·艾斯曼在潮流秀上表示，“看着能在自然中看到的静谧蓝、干净的天蓝色，我们的内心也将变得平静，产生沉静之感。我认为这里需要温暖感觉的热情和共鸣的颜色，那就是蔷薇粉”。换句话说，就是能通过这两种颜色获得和平与均衡之感。看着这两种颜色，我们就仿若安坐在阳光充裕的温暖海边、看着逐渐染上粉红色的天空，心情无比愉悦。

伴随着PANTONE公司发布今年的流行色彩，嗅觉灵敏的化妆品、时尚界便开始发布带有蔷薇粉和静谧蓝的产品。NOROO PANTONE色彩研究所也通过今年的色彩提供各种服务。正如去年的颜色玛莎拉酒红色的流行案例一样，每年PANTONE公司发布的流行色都会对产品销售产生巨大影响，因此各大公司都会快速积极地对此做出反应。业界的这种反应也意味着消费者对颜色潮流变得越来越敏感。因此，预计未来多个领域都将推出利用这两种颜色的产品。



Our Beautiful Natural Face

NOROO's 70th ANNIVERSARY PHOTO EXHIBITION

The footsteps of a 70-year-long marathon, workers hard at work to produce paint, the pipes and drums inside the paint factory that crisscross in robust lines and firm curves. These images of NOROO, captured through the lens of photographer Byun Soon-choel, are familiar yet unusual, powerful for being straightforward and tough because they are quiet. Through the collaboration between NOROO Group and Artist Byun Soon-choel, in particular, through Byun's tenacious efforts to portray NOROO's natural face, the essence of NOROO was beautifully narrated at NOROO Group's 70th anniversary photo exhibition NOROO – Master of Colors.

我们美丽的真容

NOROO 70周年纪念摄影展

马不停蹄地奔跑过来的70年、如火如荼的涂料生产现场，刚劲的直线与坚实的曲线相遇并结合，装运涂料的工厂管道与油漆桶，边淳哲作家用快门记录下的NOROO的方方面面既熟悉又陌生，因未加雕琢而更加强烈、静寂又坚韧。执着寻找NOROO真容的边淳哲作家与NOROO携手合作，举行了NOROO 70周年纪念摄影展《NOROO - 支配色》，我们能在这里找到NOROO的美丽真容。



VIEWING NOROO'S PORTRAIT

It was as if sunspots had exploded. Paints created universes amidst the noise of busy work and overflowed like sparkling galaxies. The traces of paint that piled up inexorably were as intense as an abstract painting and the surface that had been carelessly painted on with patches of color was as sensuous as a work of art. Mixed paint gently flew over like the glaze on a moon-shaped jar, and the paint layers created over time were as mellow as a winter mountain inside an ink-and-wash painting. Even though these were scenes that we knew very well, seen inside frames at an exhibition hall, they somehow felt as unfamiliar as a freshly taken ID photo of oneself. This is how NOROO was depicted in last fall's 70th anniversary photo exhibition NOROO –Master of Colors held at Insa Art Center in Seoul. “I wanted to deliver everything in a concise and face-to-face manner. You see, just like humans, space and objects also contain a myriad of emotions behind a seemingly expressionless face. I tried my best to portray those emotions in a natural manner.” As explained by Byun, in his photograph, NOROO gains a clear impression through objects. The factory façade inside his photos, whose upright exterior gives off a virtuous impression, also contains the traces of the passage of time, making them as trustworthy as NOROO's 70 year-long legacy. Byun made numerous visits to various NOROO factories both inside and outside of the country over a period of six months and observed each subject a number of times before he pressed the shutter of his camera. This way, he was able to discover the fundamental characteristic of NOROO from the color of paints and factories.

欣赏NOROO的肖像画

那是太阳黑子爆发的瞬间。在工厂的噪音与有规律的劳动中，涂料每时每刻都在生成宇宙、涌动闪耀的银河。肆无忌惮堆积的涂料痕迹仿若肖像画般给人强烈的震撼，工作中无心漆成的色面如同画家的作品般充满感性。混有涂料的斑驳痕迹仿若月亮罐的釉料般柔和细腻，涂料层层堆积形成的岁月的层叠仿若水墨画中的冬日山景般幽深。虽然与平常的NOROO并无两样，但透过展馆中的相框看起来又仿若透过证件照看自己般新奇。这是今年秋季在首尔仁寺艺术中心举办的NOROO 70周年纪念摄影展《NOROO - 支配色》中NOROO的模样。

“我想传达简洁、直接的感觉。像人一样，空间与事物中也有蕴含无数感情的无声表情。我希望在摄影作品中将这些无声表情自然地表现出来。”

正如边淳哲作家解释的那样，在他的作品中，NOROO通过事物具备了人一般的分明印象。他拍摄的工厂立面，外观给人以刚正、正直的第一印象的同时又饱含了岁月的痕迹，如70年的NOROO历史般值得信赖。为了在涂料的颜色与工厂的模样中找出NOROO的本质，边淳哲作家在六个月的时间里参观NOROO的国内外工厂数十次，在考察对象多次后才坚决地按下快门。



SHAPE, COLOR, PEOPLE

Art has become a major talking point of late, leading to frequent collaborations between companies and artists. The collaboration between NOROO and Photographer Byun Soon-choel was an experimental attempt as the company commissioned the portrayal of “shape” and “color” in addition to “people” to an artist who had mainly been dealing with portraits of people. Department Head Han Kyung-won of the Brand Communications Office at NOROO Holdings who planned the photo exhibition, explains that it was Byun’s National Singing Contest series that caught her attention. “He realistically portrayed various emotions in color with a fond attitude and in a sophisticated manner. I thought that he was definitely the best artist out there who can candidly portray NOROO’s color, history and the workers who built the company through their hard work.” Department Head Han Kyung-won’s choice hit the arrow on the bull’s-eye. Byun’s sensitive gaze that portrayed the genuine character of the subjects, their nature, the time in which they belonged and their roots in Interracial Couple and National Singing Contest proved once again effective in his work for NOROO. He dug deep into the core of NOROO Group and illuminated the company’s shape, color and people through the mirror inside his camera. During his interview for a magazine, Byun once said that “Color contains reality and is therefore most powerful. Photographs carry more strength when their form and content agree and when they reflect the reality.” Perhaps the collaboration yielded such a meaningful exhibition because the artist held this kind of philosophy from the inception.

形、色、人

近来随着艺术成为热门话题，经常能遇到企业与艺术家合作的案例。其中NOROO与边淳哲作家的合作可以说是试验性的，因为对于主要拍摄人物作品的作家而言，要同时抓住“人”、“形”、“色”三个主题。对此，企划本次摄影展的NOROO控股股份有限公司品牌传媒室韩景媛室长称“我在边淳哲作家的《全国歌唱比赛》系列中找到了契合点”。

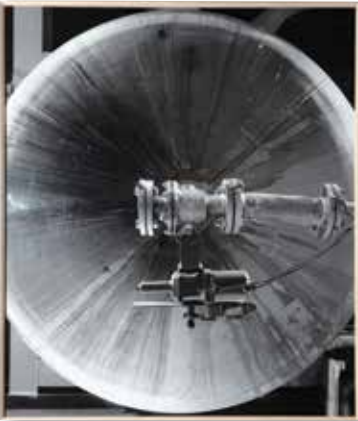
“他用彩色照片真实地表现了诸多感情的同时又深情而简洁，我认为他是最适合生动真实地表现NOROO的色彩、历史与公司的主人-劳动者模样的摄影作家。”而韩景媛室长的预想非常准确。通过《伙伴》、《全国歌唱比赛》等质朴无华地表现了摄影对象的模样，同时表现了其内在的本质与他所属的时代性，这就是边淳哲作家的视角，他在本次作品中也深入了解NOROO，如同镜子般用相机拍出了NOROO所具有的“形、色、人”。边淳哲作家在某杂志的采访中说，“色彩中有现实、也更具力量。形式与内容达成统一并表现现实的照片就会拥有一种力量”。或许正是因为边淳哲作家的这种想法，本次合作才得以产生更具深意的作品。

FOLLOWING A BEAUTIFUL GAZE

On the opening day of the exhibit, Chairman and CEO Han Young-jae of NOROO Group visited the Insa Art Center and left his feedback about the work of photographer Byun Soon-cheol. “It’s refreshing to view something that I am so familiar with from a completely different perspective. I felt as though everyday scenes had come to life.” Visitors may enter the exhibit guided by the author’s intent, but since none of the works are given a title, what each visitor sees and feels and the meaning that each person obtains during the course of the exhibit ends up being completely different. Each person’s impression of the works on display, however, as Chairman and CEO Han Young-jae so adequately put, are closely connected to NOROO’s every day, present and history. NOROO’s beautiful natural face that we found through the artist’s viewfinder will continue to evolve into something even more precious through the passage of time and amidst numerous gazes, ever transforming and moving forward.

跟随美丽的视线

摄影展第一天，韩荣宰会长来到仁寺艺术中心，他对边淳哲作家的此次作品感叹道“与一般的生硬视角不同，作品用全然不同的新视角诠释了NOROO，感觉非常新鲜。让我们感受到了日常场景带来的鲜活生动感觉”。因作品中未附加任何题目，故而跟着作家的视角找到的意义与印象也全然不同。但正如韩荣宰会长所评价的那样，各种感想都与鲜活生动的NOROO日常、现在以及历史紧密相连。通过边淳哲作家的镜头，我们所找到的NOROO的美丽真容将在各种视角与时间流逝中不停地变化、前行。





Cutting Edge Greenhouse in Kazakhstan, Cultivating the Future

On November 27 of 2015, KIBAN AGRO, the Kazakhstan subsidiary of KIBAN ENGINEERING, which handles NOROO Group's agriculture and life facility businesses, signed a Controlled Horticulture Business Agreement with the Kazakh National Agrarian University. Chairman and CEO Han Young-jae, who received the first honorary doctorate degree awarded to a foreigner from Kazakh National Agrarian University on the same day, expressed his wish to "develop, using Korea's cutting edge IT technology, cultivation technologies that are suitable for the agricultural conditions of Kazakhstan and contribute to Kazakhstan's development through the Greenhouse Horticulture Business as a long-standing partner." Inside the Greenhouse in Zharkent, Kazakhstan, which NOROO Group has been in partnership with since May 2015, cutting edge IT technology has been promoting the cultivation of tomatoes that are larger and more nutritious.

哈萨克斯坦的高科技温室，栽培未来

去年11月27日，NOROO集团担任农业生命设施项目部门的KIBAN工程股份有限公司（KIBAN ENGINEERING），其哈萨克斯坦当地法人——KIBAN（KIBAN AGRO）与哈萨克斯坦国立农业大学签署了设施园艺项目合作协议。当天，韩荣宰会长在哈萨克斯坦国立农业大学，成为获得外国名誉博士学位的第一人，他表示“我们将结合韩国的尖端IT技术，开发适合哈萨克斯坦农业条件的栽培技术，通过温室设施园艺项目，以长期合作伙伴的身份为哈萨克斯坦的农业发展做出贡献”。自2015年5月起与NOROO集团携手合作的哈萨克斯坦扎尔肯特地区温室农场中，利用尖端IT技术栽培的番茄正在茁壮成长。

NOROO GROUP PROMOTES AGRICULTURE AND LIFE TECHNOLOGIES

NOROO KIBAN, NOROO Group's central corporation in the Agriculture and Life sector, established KIBAN AGRO, NOROO's Kazakhstan subsidiary, by means of its affiliated company KIBAN ENGINEERING and signed an MOU of joint research development with the Kazakh National Agrarian University on June 19, 2015. Located in Kazakhstan's old capital Almaty, Kazakh National Agrarian University owns top notch agricultural research facilities and technologies among Kazakhstan institutions. Although the capital has now moved to Astana, Almaty still serves as an economic and cultural center and is the largest city in Central Asia.

Blessed with ample amounts of sunlight throughout the day, Kazakhstan produces fruits and flowers with excellent sweetness and beautiful colors and has an advantage in producing high quality crops. It is predicted that, if Kazakhstan can produce high quality agricultural yield regardless of the weather, its agricultural industry could develop into a national export business. To that end, NOROO KIBAN signed an MOU with Kazakhstan. NOROO's goal is to provide technologies for the exchange and development of agriculture in Korea and Kazakhstan and conduct joint research. NOROO KIBAN has also established an Agricultural Technology Research Center and started to grow tomatoes at the



Greenhouse using cutting edge IT technology since August 2015. The greenhouse is located among the spacious pastures of Central Asia and is equipped with Automation Environment Control System for year round production.

The company plans to promote Kazakhstan's distribution and export through providing facilities and equipment to the cutting edge greenhouse. Also on the cards is creating a joint brand with Kazakh National Agrarian University through industry-academy cooperation and collaboration with the local residents. Through such efforts, students of Kazakh National Agrarian University are expected to develop into technical professionals of the future. A NOROO KIBAN executive stressed that "Agricultural technology is an important skill that is related to both high quality product improvement and food supply. NOROO KIBAN will continue to dedicate itself to developing and distributing various techniques through collaborating with the Kazakh National Agrarian University."

Amidst concern by WFP (World Food Programme) over the growing world food crisis due to climate change worldwide, NOROO Group is taking on a trailblazing challenge in the agriculture and life technology field to once again write a new chapter in NOROO's patriotic and humanitarian business history.



NOROO集团，培养农业生命技术力

NOROO集团的农业生命持股公司——NOROO KIBAN 股份有限公司，通过子公司 KIBAN 工程股份有限公司在哈萨克斯坦成立了当地法人，于6月19日与哈萨克斯坦国立农业大学签署共同研究开发合作协议谅解备忘录（MOU）。哈萨克斯坦国立农业大学在哈萨克斯坦也是拥有屈指可数高水平农业研究设施与技术的机构，位于哈萨克斯坦的首都阿拉木图。现在首都已改为阿斯塔纳，但阿拉木图不仅是哈萨克斯坦乃至整个中亚地区最大的城市，同时也发挥着经济与文化中心的职能。

哈萨克斯坦的日照量充足，果蔬类和花卉类的糖度与颜色均良好，有利于生产出优质商品。如果能够不受天气限制供应高品质农产品，预计未来产品可大量出口的国外。对此，NOROO KIBAN 股份有限公司通过签署MOU普及促进韩国与哈萨克斯坦农业交流与发展的技术、共同进行研究，随后又开设农业技术研究中心，2015年8月开始利用尖端IT技术在温室农场中栽培番茄。位于中亚辽阔大地上的该温室采用自动化环境控制系统，配备有四季生产设备。

另外，NOROO不仅提供了高科技温室的设备与栽培技术，未来还计划通过产学合作及地区居民合作，与哈萨克斯坦国立农业大学共同打造品牌、实现流通与出口，预计哈萨克斯坦国立农业大学的学生们将藉此成长为专业技术人才。NOROO KIBAN 股份有限公司相关人士表示，“农业技术是与高品质商品改良、粮食补给都息息相关的重要技术之一。NOROO KIBAN 股份有限公司将通过与国立农业大学间的合作，尽全力开发并普及各种技术”。

在世界粮食计划署（WFP）因全球气候异常担心世界粮食危机扩大的大背景下，期待NOROO集团能通过在农业生命技术方面的先驱挑战，再次谱写产业报国的历史。

News Briefing



2016 NOROO GROUP KICK-OFF MEETING

NOROO Holdings Co., Ltd.

NOROO控股股份有限公司

2016 NOROO GROUP KICK-OFF MEETING

NOROO Group began the New Year by holding a kick-off meeting at the Welfare Center inside the Anyang Headquarters on January 4, 2016. The meeting began with the Pledge of Allegiance, repetition of the Company Motto, and the New Year's Greetings and proceeded to presenting appointment certificates to executives who were promoted, the New Year's Address by Chairman & CEO Han Young-jae and the singing of the company song by all participants. At the Appointment Certificate Ceremony, Byeon Jung-kwon (Chief Accountant and CEO of NOROO Paint (Shanghai) Co., Ltd.), Shin Joon (Vice President of NOROO Chemicals) and Lee Seong-gyu (Vice President of NOROO R&C and NOROO Chemicals) received their certificates of appointment. Other executives who were promoted to Senior Director and Assistant Senior Director according to the promotion announcement made on December 31 solidified their determination for the New Year. Chairman & CEO Han Young-jae, through his New Year's Address, commended the employees on their hard work last year and announced the 2016 management philosophy of NOROO WAY "Blazing a New Trail into the Future" as the group's management index to encourage employees to develop a spirit of challenge and courage. All participants sang the company song in unison to prepare themselves for a new year.

举行2016 NOROO集团始务式

2016年1月4日，在NOROO集团安养工厂福利馆举行了始务式，开启了充满挑战的一年。始务式依次进行了国民仪礼、社训复诵、新年贺礼环节后

对社长团与高级管理人员的晋升授予任命状，接下来又由韩荣宰会长致新年辞、全体与会人员同唱社歌。在任命状授予仪式上，根据12月31日发布的人事内容，NOROO涂料（上海）有限公司董事长兼总经理卞正权被授予相应任命状，NOROO碧化学有限公司代表理事副社长申峻、NOROO特种树脂有限公司兼NOROO化工有限公司代表理事副社长李性奎分别被授予相应任命状。另外晋升为常务和常务助理的高级管理人员也被授予任命状，以全新的姿态迎来新年。

紧接着韩荣宰会长在新年辞中对员工们去年的劳苦表示慰问，公布了2016年集团的经营指标，即“世界上没有的路，由NOROO来开拓”之NOROO WAY经营哲学，倡导积极的挑战精神与勇气。此后出席本次活动的全体人员高声齐唱社歌，整备身心，准备迎接充满挑战的新年。

NOROO Paint & Coatings Co., Ltd.

NOROO涂料股份有限公司

NOROO PAINT & COATINGS, WEB AWARD KOREA WON FIRST PRIZE IN THE MOBILE WEB MARKETING SECTOR

NOROO Paint & Coatings (CEO Kim Soo-kyong) won the first prize in the Mobile Web Marketing sector of the '12th annual Web Award Korea.' NOROO Paint & Coatings' mobile website was created with a focus on enhancing user convenience so that they could conveniently use various information and services listed on the website on their smartphones. It allows convenient application to the NOROO Academy, which provides training for Virtual Painting Service and Self Painting, services that utilize the photographing feature of the mobile phone, and offers various contents such as DIY, Self Interior, etc. through linkage with Facebook and various blogs. The



NOROO PAINT & COATINGS, WEB AWARD KOREA
WON FIRST PRIZE IN THE MOBILE WEB MARKETING SECTOR

mobile website is composed of the optimal UI and UX in which information on NOROO Paint & Coatings' products can easily be checked and with a design that reflects the identity of NOROO as a color specialist. Web Award Korea, hosted by Korea Internet Professional Association and sponsored by the Ministry of Science, ICT and Future Planning, is an award ceremony in which a panel of 2,000 judges made up of top Korean web professionals select and evaluate the most innovative and outstanding wire or wireless websites. NOROO Paint & Coatings, which had already won in the Corporate Blog sector of 2013 Web Award Korea for its official blog ChinChin NOROO once again received an award this year. NOROO Paint & Coatings stated that it "will continue to develop digital channels in the future for the purpose of actively communicating with customers and enhancing user convenience of information usage," and added that "NOROO Paint's blog ChinChin NOROO's hybrid app version will be released in February 2016 to provide more exciting services to ChinChin NOROO users."

NOROO涂料股份有限公司，Web Award Korea

荣获移动网络营销部门最优秀奖

NOROO涂料股份有限公司（代表金守经）在“第12届Web Award Korea”荣获移动网络营销部门最优秀奖。NOROO涂料股份有限公司移动网站是为确保客户在智能手机上也能便利地使用公司主页的各种信息与服务、以提高用户便利性为重点而开发的。特别是可利用移动网站申请NOROO学院，用户可在NOROO学院中灵活利用移动设备可拍照的优点接受虚拟漆涂服务和自助漆涂培训。此外移动网站与facebook、博客相关联，提供DIY、自助装修等多种多样的内容。移动网站由最优化UI、UX及反映色彩专业企业特点的设计构成，可轻松查看NOROO涂料股份有限公司产品的详细信息。Web Award Korea是由韩国网络专家协会主办、未来创造科学部协办的活动，以有线和无线网为对象，由韩国国内的代表网络专家构成的2,000



NOROO PAINT & COATINGS, COLOR OF THE YEAR
APPLIED TO SEOUL NATIONAL UNIVERSITY

名评估委员团评选出最优秀、创新的网站并举行颁奖仪式。继NOROO涂料股份有限公司的官方博客“Chinchin NOROO”在2013 Web Award Korea企业博客部门获奖后，今年再次荣获此殊荣。NOROO涂料股份有限公司表示“为了与客户积极沟通，同时提高使用信息服务的便利性，公司将持续开发数字渠道”，公司还补充道“NOROO涂料博客‘Chinchin NOROO’的混合应用程序版本预计将于2016年2月推出，Chinchin NOROO的用户将体验到更有趣的服务”。

NOROO PAINT & COATINGS, COLOR OF THE YEAR APPLIED TO SEOUL NATIONAL UNIVERSITY

On January 7, the first floor front wall of Seoul National University's newly built Engineering Hall was painted with Pantone's 2016 colors Rose Quartz (13-1520) and Serenity (15-3919). This is the second time they have done so following the application of 2015's Marsala color. The wall featured a sign that introduced NOROO Paint & Coatings and Pantone and described the colors. Seoul National University Engineering Hall's first floor front wall is painted each year in Pantone's Color of the Year and utilized as a promotion wall to showcase NOROO Paint & Coatings' sharp perception of color.

NOROO涂料股份有限公司，首尔大学采用今年的流行色

1月7日，首尔大学新工学馆1层正面采用了PANTONE选出的2016年的流行色蔷薇粉Rose Quartz (13-1520) 与静谧蓝Serenity (15-3919) 来漆涂墙面。继2015年应用玛莎拉酒红色后，这是首尔大学第二次采用PANTONE发布的年度流行色彩，墙面上还设置了NOROO涂料股份有限公司和PANTONE公司的标志牌，与流行色一同进行宣传。首尔大学新工学馆1层正面每年都采用PANTONE公司发布的流行色，成为了传达NOROO涂料股份有限公司色彩感觉的宣传墙。

News Briefing

26

NOROO QUARTERLY MAGAZINE



NOROO PAINT & COATINGS SETS OUT TO DELIVER BRIQUETTES

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On December 12, NOROO Paint & Coatings carried out a 'Sharing Love: Briquette Delivery Community Service' to help out neighbors in need.

The Sharing Love Volunteer Group, which consists of around 100 NOROO Paint & Coatings employees and local volunteers, delivered 4,500 briquettes as well as blankets worth 3 million KRW to elders who live alone, children living with their grandparents and alienated families that reside in Hohyeon Village near NOROO's Anyang Headquarters.

Chairman Park Yeon-soo of NOROO Paint & Coatings' Labor Union said that he hopes NOROO Paint & Coatings' employees would turn this event into an opportunity to share the joy of giving and care for our neighbors who are less fortunate than ourselves. He also expressed his desire to "continue with community service as a region-based company."

Employees of NOROO Paint & Coatings have been carrying out corporate social responsibilities since a long time ago regularly each year by visiting marginalized facilities such as orphanages and repainting the inner walls of various facilities, and drawing murals on institutes for the disabled in partnership with government organizations, corporations and college students.

NOROO涂料股份有限公司，开展赠送蜂窝煤志愿活动

NOROO涂料股份有限公司在去年12月12日，开展了为贫困居民送去“爱心蜂窝煤”的志愿活动。

由100名NOROO涂料股份有限公司的员工和地区社会志愿者构成的爱心志愿者团为居住在安养工厂附近狐岬村的独居老人和弱势群体捐赠并送去了4,500块蜂窝煤和相当于三百万韩元的棉被。

共同参与本次活动的NOROO涂料股份有限公司工会委员长朴然洙表示，“希望NOROO涂料股份有限公司的员工能通过志愿活动感受到分享的喜悦，同时又能照顾到我们的邻居”，“我们将与地区社会一起继续参与类似的志愿活动”。

NOROO涂料股份有限公司的员工出了参加探访保育院和参与设施内外壁及各种设施物品再涂装的志愿活动外，从很久以前开始就每年自发地与政府机构、企业、大学生等携手为低收入层及残障人士福利设施绘制壁画。



A participant is writing down her question at the Q & A corner of the 2016 NOROO International Color Trend Show. Thanks to active audience participation, the lecture series became much more animated. Our heartfelt gratitude goes out to all participants!

参与者正在《2016 NOROO国际色彩潮流秀》现场的留言板上写下自己想说的话。参与者的积极提问使演讲得以更加生动、精彩地进行。在此对所有参与者表示由衷的谢意~



Chairman & CEO Han Young-jae visited KIBAN AGRO in Kazakhstan and surveyed the greenhouse using state of the art IT technology. Notice how the tomato that he took a bite out of resembles the shape of a heart!

参观哈萨克斯坦的 KIBAN 农业股份有限公司 (KIBAN AGRO)，在使用尖端IT技术的温室中，韩荣宰会长亲自品尝刚摘回来的番茄。被咬了一口的番茄好像心形啊！

Behind Cut



Chairman & CEO Han Young-jae, Photographer Byun Soon-choel, Department Head Han Kyung-won and other visitors to NOROO's 70th anniversary special exhibition: NOROO – Master of Colors posed together for a commemorative photograph last year. This photo will also become a part of NOROO's collection of historical photographs over time.

去年在举办为纪念NOROO 70周年而筹备的活动《NOROO-支配色》前，韩荣宰会长与边淳哲作家，韩景媛室长以及光顾展厅的访客们齐聚此处、拍照留念。此照片定然也将成为NOROO历史中的一幕。

