

智俐与王国聪： 变废为宝，乐此不疲

政府、大学都鼓励学生创业，拉萨尔艺术学院PLACE (Programme for Lasalle Creative Entrepreneurs) 计划的使命是激发和培养学生的创业精神。从PLACE获益的该校室内设计荣誉班毕业生 [去年] Jodie Monteiro (智俐) 不仅研发了Ferticlay (肥沃黏土)

，还与国大在读生王国聪携手创立了同名品牌，智俐也是Ferticlay公司总裁。

Ferticlay是一种新的可降解黏土材料，由磨碎的蛋壳和坚果壳等食物垃圾制成。两人目前专注于测试不同的配方以创造出不同黏土混合物，以适合从农业到建筑的各种应用。在农业上可以为植物创造营养生长基质，让植物长得更好；建筑上可用于墙壁，甚至地板与家具的制作。两人目前探讨如何修改产品，并让产品替代市面上不可降解和

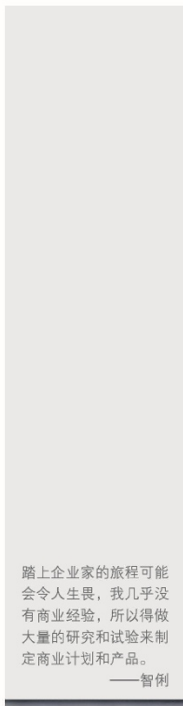
有毒的材料。

智俐透露创立Ferticlay是一种全新的体验，“踏上企业家的旅程可能会令人生畏，我几乎没有商业经验，所以得做大量的研究和试验来制定商业计划和产品。因为我们是一家回收蛋壳、报纸和咖啡渣等的公司，须要与许多供应商联系并妥善储存这些材料。我们在研发从泥土中筛选出黏土沉淀物，将不同的材料混合在一起并测试它们的抗拉强度等，直到得到想要的结果。看到想法和愿景实现，感到兴奋，创造和探索的乐趣，也受益匪浅。”

在国大主修环境工程的荣誉生王



智俐 (右) 与王国聪携手合作研究可持续性的有机黏土。(Ferticlay提供)



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——智俐



肥沃黏土的材料包括蛋壳等，不会污染环境。(Ferticlay提供)

国聪认为：“黏土不仅在农业，且在建筑中是一种非常重要的天然资源，像土壤甚至水一样，黏土是一种有限的资源，而且越来越稀缺。许多人对黏土有误解和缺乏认识，认为黏土是一种人造、无机的材料，与不同的环境和材料不相容。这是Ferticlay将有效地教育和说服市场的主要挑战。”

未来可期

该选择的环保项目，智俐说，参加2020年亚洲设计大赛，更深入地探索了自己的爱好——园艺、艺术和手工艺。“我决定在大赛中，提出一个方案来解决我曾尝试过的纸张黏土 (paper clay) 项目所遇到的问题，因为使用面粉等会浪费材料，我尝试用磨碎的蛋壳代替，并从叔叔的花园中过筛黏土，尝试将其与各种成分混合，最终创造了第一批肥沃黏土，它由100%有机废料制成，可分解并成为自然环境的肥料。”

虽然一些人视“回收”为麻烦或不便，但她认为这是回馈地球和感恩上帝一开始所赋予我们的一切。研发了首批肥沃黏土后，她的讲师鼓励她未来发展成商业模式，她决定报名PLACE，获选后PLACE的导师指导她如何从创造性的角度开展业务等。



智俐 (左) 研发的肥沃黏土获奖。(Ferticlay提供)

24岁的智俐未来也打算探索如何处理陶瓷垃圾，“我对韩国陶瓷非常感兴趣，并计划在韩国攻读陶瓷硕士学位，希望学习和探索如何回收陶瓷废料，同时了解艺术形式并应用其技术来创造新形式的可降解陶器。”

26岁的王国聪今年5月将毕业，他将保持继续探索创业或到企业上班的开放心态，“无论如何我还是想留在循环经济或废物管理领域，因为这是

我的热情所在。”

肥沃黏土去年在Startup Weekend Global冠军、职位评价集团FITHack亚军。也在TigerLaunch亚洲区域的竞赛胜出，两人下个月将前往美国普林斯顿大学参加TigerLaunch美国总决赛。“我们计划今年第四季让产品上市，届时将推出一些能满足农业到建筑不同需求的产品。”

有关PLACE计划

拉萨尔艺术学院的设计学院院长努尔希达雅 (Nur Hidayah) 受访时说，PLACE于2021年6月作为试点计划运行，本月起正式运作。智俐是最初试点计划中三名被选中的其中之一。她说每年都会邀请符合条件的学生申请，审查所有申请后，透过面试和口头报告来缩小选择范围。中选者可以获得导师、人脉网、上大师班等来展开他们的项目和孵化空间。导师有的曾被《印度硅谷》(SiliconIndia) 杂志评为“本月企业家”，有的曾被评价为亚洲十大年轻企业家。



拉萨尔艺术学院设计学院院长努尔希达雅支持学生创业。(拉

伊尔提供)

谈到学校如何看待学生创业的愿景，努尔希达雅说：“在启动PLACE之前，我们展开了一项调查收集学生的意见，发现大概78%渴望在未来成为企业家，或成为多相关信息。一些学生的想法未来可以有所发展，许多毕业生不仅满足特定的商业需求，也满足社会和文化的需要。”

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Entrepreneurship Before Graduation

Youth may catch one unprepared, but it is nevertheless precious; everything one does when young leaves behind memories that are always going to be remembered.

University days are at the tail end of one's youth and just a step away from entering the workplace. Every student has their own version and interpretation of youth. Some just want to continue to study, while some are already chasing their dreams, starting a business, and becoming young adults. As travellers in time, how do university students view their own entrepreneurship, and what kind of support are their families and schools providing?

Lianhe Zaobao interviewed several university students, who shared their experiences of starting a business and their expectations for the future. The students felt that the biggest challenge was time allocation, as they have a heavy workload. The era of independent media has given them the opportunity to start businesses, allowing them to become more independent and understand themselves better. They also did not ignore environmental issues, and started selling second-hand clothes and developing fertile clay, all out of their love for the Earth. During the pandemic, the young entrepreneurs, who are full of positive energy, gave away their own products to thank nurses in the nursing homes.

Happily and tirelessly turning waste into treasure

The government and universities all encourage student entrepreneurship. The mission of LASALLE College of the Arts' Programme for LASALLE Creative Entrepreneurs ("PLACE") is to inspire and cultivate students' creative and entrepreneurial spirit. Jodie Monteiro, who was a BA(Hons) Interior Design graduate last year, benefited from PLACE. She not only developed Ferticlay (fertile clay), but also co-founded the eponymous brand with NUS student Ong Kok Chung. Jodie is also the president of the Ferticlay company.

Ferticlay is a new sustainable clay material made from food waste such as ground eggshells and nut shells. The pair are currently focusing on testing different formulations to create different clay mixtures for applications ranging from agriculture to construction. In agriculture, a nourishing growth substrate can be created to make plants grow better; in architecture, it can be used for making walls, and even floors and furniture. The pair is currently exploring ways to modify their product which can replace the unsustainable and toxic materials in the market.

Jodie shared that founding Ferticlay was a brand new experience. "It can be daunting to embark on the journey of an entrepreneur. I had almost no business experience, so I had to do a lot of research and experiments to develop a business plan and products. Since we are a company that recycles eggshells, newspapers, coffee grounds, etc., we need to contact many suppliers and properly store these materials. We are working on R&D to screen clay deposits from soil, mix different materials together and test their tensile strength, until we get the desired results. It is exciting to see ideas and visions come to fruition and rewarding to experience the joy of creating and exploring."

Kok Chung believes that "clay is a very important natural resource not only in agriculture, but also in construction. Like soil and even water, clay is a limited resource, and it is becoming more and more scarce. Many people have misunderstandings or a lack of awareness of clay, believing that clay is a man-made, inorganic material that is incompatible with different

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environments and materials. This is the main challenge for Ferticlay to effectively educate and convince the market.”

A hopeful future

Talking about choosing an eco-friendly project, Jodie said that participating in the 2020 Asia Design Competition has allowed her to explore her hobbies, namely, gardening, arts and crafts more deeply. "I decided to come up with a solution in the competition to solve the problems I had with a paper clay project I had tried. Since using flour, etc. would be wasteful, I tried using ground eggshells instead. I also filtered clay from my uncle's garden, and tried mixing it with various ingredients, eventually creating the first batch of Ferticlay. It was made from 100% organic waste that could decompose and become a fertiliser for the natural environment. "

While some people see recycling as a hassle or inconvenience, Jodie sees it as giving back to the planet and thanking God for what was endowed in the first place. After developing the first batch of Ferticlay, her lecturer encouraged her to develop it into a business model in the future. She decided to sign up for PLACE. After being selected, she was taught by PLACE's mentors how to develop a business from a creative perspective.

24-year-old Jodie also planned to explore how to manage ceramic waste in the future. "I am very interested in Korean ceramics and plan to study a master's degree in ceramics in South Korea. I hope to learn and explore how to recycle ceramic waste, while understanding the art form and applying its techniques to create new forms of sustainable pottery."

26-year-old Ong Kok Chung will graduate in May this year. He will keep his options open, to either continue exploring entrepreneurship or start work in a company. "In any case, I still want to stay in the field of recycling or waste management, because it is where my passion lies."

Last year, Ferticlay won the Start-up Weekend Global champion, NTUC FairPrice Group FIThack runner-up, and the TigerLaunch Asia competition. The pair will go to Princeton University in the United States next month to participate in the TigerLaunch US Finals. "We plan to launch our products in the fourth quarter of this year, meeting different needs, from agriculture to construction."

Nur Hidayah, the Dean of the Faculty of Design at LASALLE College of the Arts, supports student entrepreneurship. When talking about how the college views the vision of student entrepreneurship, Nur said, "Before launching PLACE, we carried out a survey to collect student opinion and found that about 78% yearned to become entrepreneurs in the future or were interested to know more. Some ideas of the students could be further developed in the future, and many graduation projects could not only meet specific commercial demands, but also societal and cultural demands."