

中青新世纪产品设计丛书

产品创意设计

刘传凯 编著



CARL LIU DESIGN BOOK



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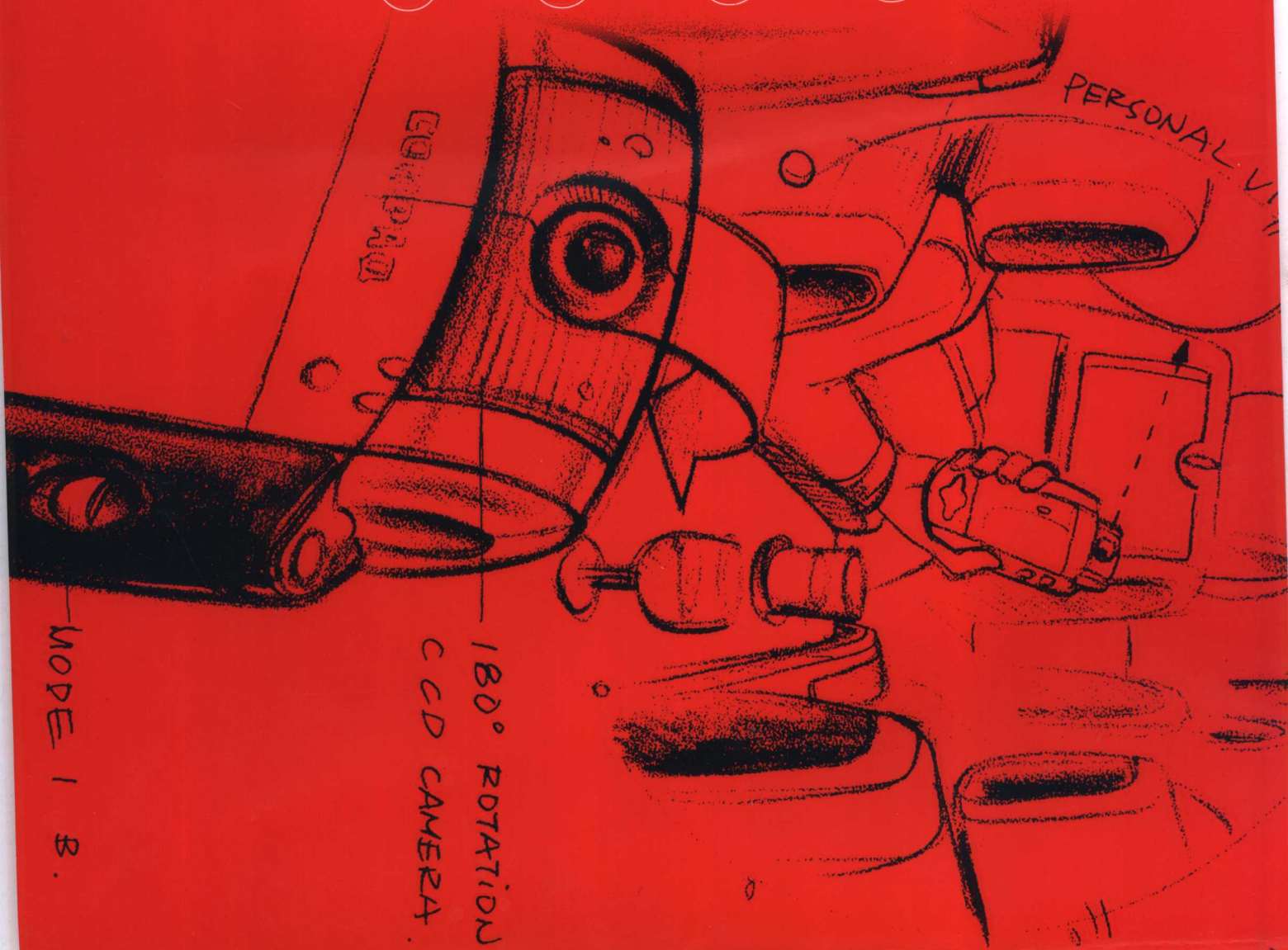
国际知名的华人设计师，对产品设计有相当深刻的理解，曾在美国和瑞士的ArtCenter研读设计，长期在美国及中国大陆从事产品设计工作，任职于设计顾问公司及国际知名企业，其设计的产品CompaqIpaq, Nike Triax 300和Triax 50等代表作品享誉全球，成功地创造了产品的销售热潮，成为以设计提升产品价值的最佳典范，并数次赢得日本G-Mark、美国IDSA以及I.D. Magazine大奖。

刘传凯的设计理念崇尚以人为本，相信惟有从最根本的文化及生活体验中，才能激发和创造出多元深刻的设计，在世代交替和文化演进的人类生命中，才能真正地找到适合现代人生活的新元素。他出生于台湾，游历欧、美、亚洲数国，这些丰富的生活经历，完全反映在他精彩多样的设计作品中。





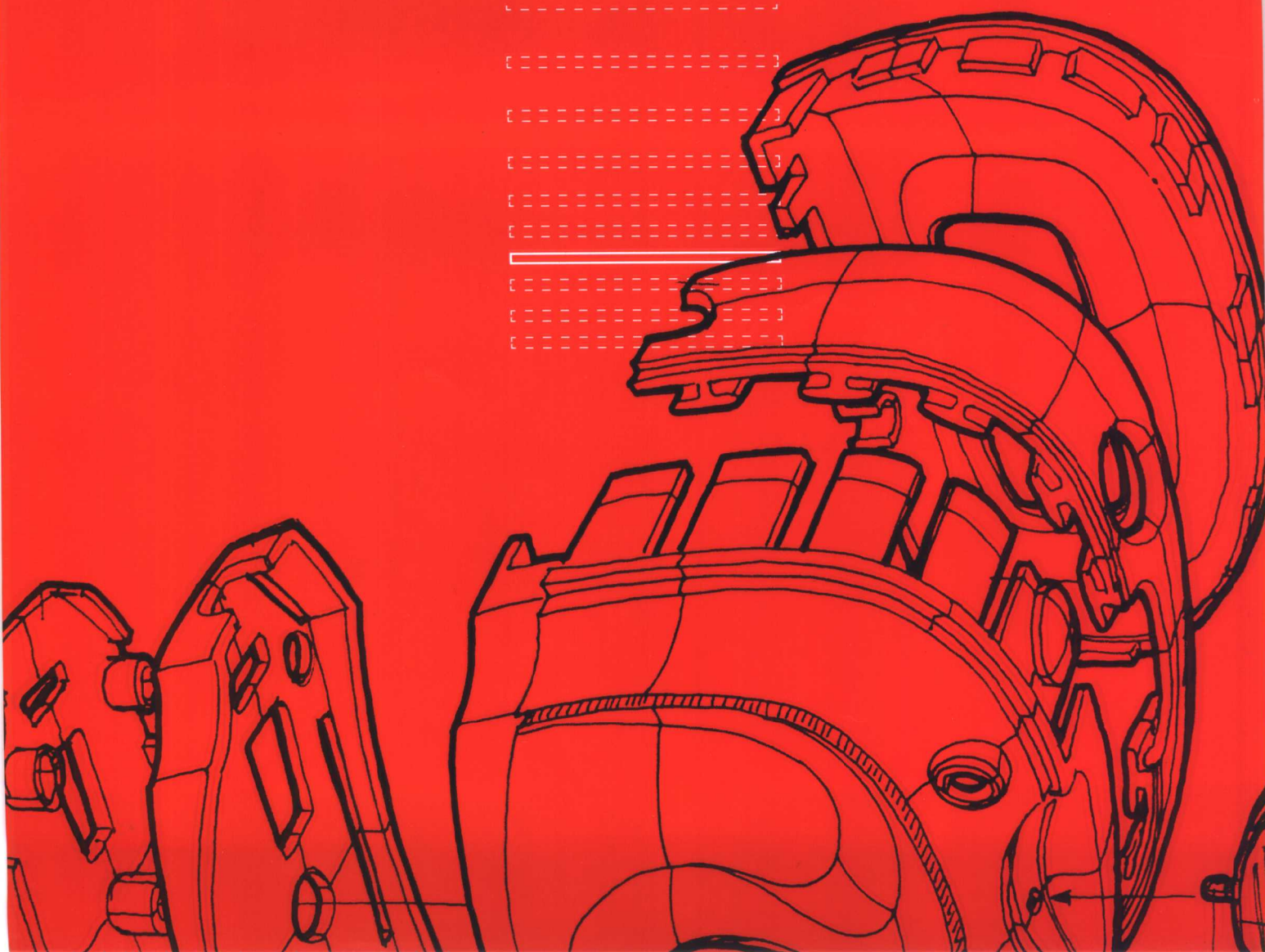
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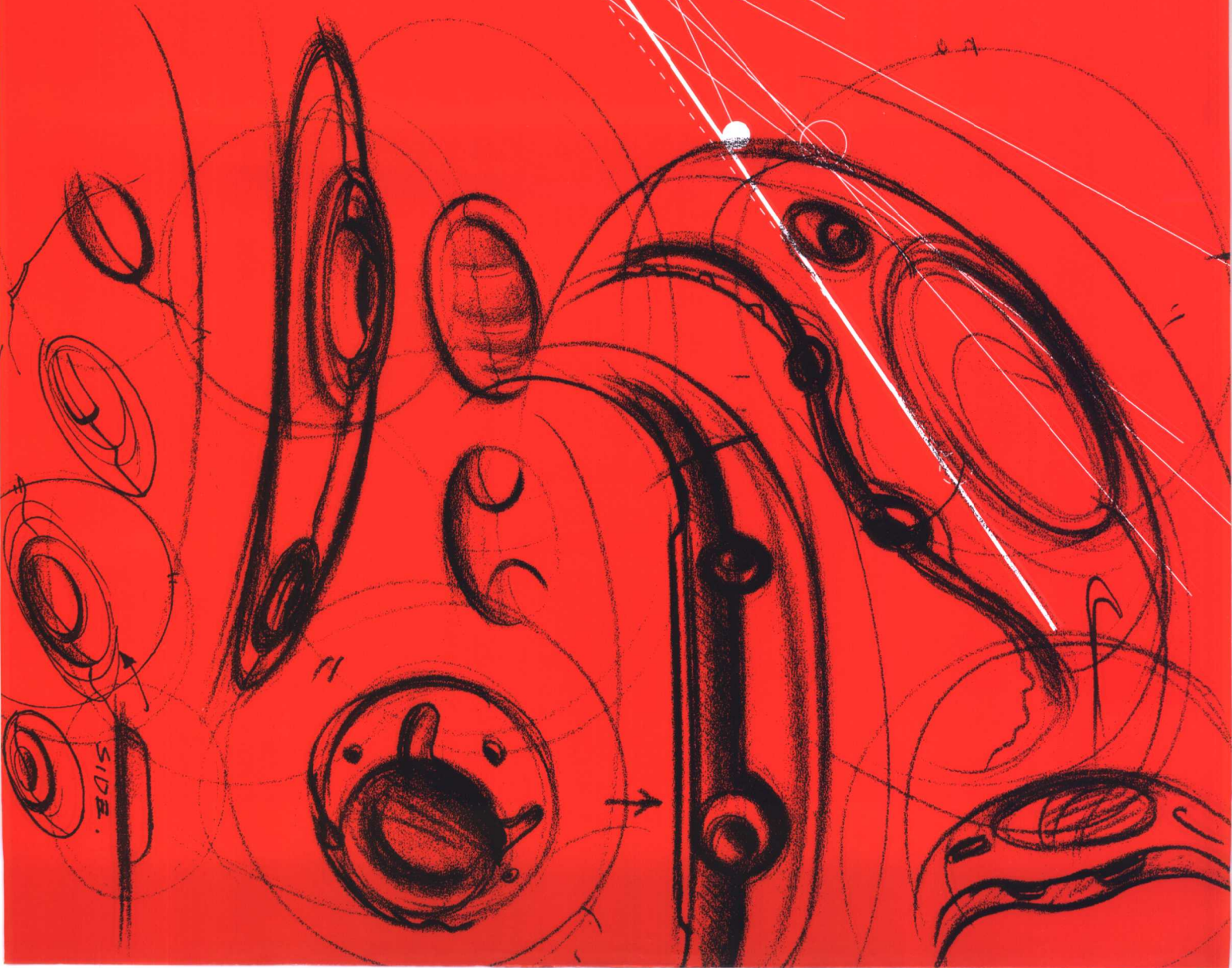


PRECISION





PERFORMANCE



carl liu

产品创意设计

CARL LIU DESIGN BOOK

刘传凯 编著



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CHINA YOUTH PRESS

ACKNOWLEDGEMENTS 致谢

This book is dedicated to my dear parents and my lovely wife. Annie Chang, who has always supported and encouraged me to write this book through all the late nights. Annie also helps me with most of the graphic work. This book would not be completed without her help. It is her book too. I also want to thank Kumo Chiu for writing the brilliant foreword for this book. I admire very much his generosity and effort of leading ID to a right track in mainland China and Taiwan. Finally I want to acknowledge all of the talented designers I have had the good fortune to work with and learn from through the years. I will always thank them for their guidance and value their friendships.

谨将此书献给我敬爱的父亲、母亲及我可爱的妻子张英惠 (Annie Chang)。是她的一直支持和鼓励，才得以完成此著。Annie也在此书的平面设计上给予我莫大的帮助。没有她，此书也将不会问世，这书也是她的书。我还要衷心感谢邱丰顺先生为此书献序，并非常欣赏他为中国大陆及台湾的工业设计领域作出的慷慨贡献。最后，我还要感谢多年来所有我有幸一起工作过的杰出的设计师们，我从他们那里分享知识，我将永远感谢他们的教诲及珍惜我们的友谊。

AUDIENCE FOR THIS BOOK

This book is for people who want to improve their Industrial Design skills and design knowledge. It will be extremely useful for

Project Managers of and within Industrial Design organizations,
Industrial designers and ID students,

Those who hire an industrial designer and want to understand what is the design process,

Those who want to enter a career in Industrial Design or creative work,

Business owners who want to understand what design can do for their business.

此书读者

该书适用于想要提高工业设计技巧及设计知识的人士，此书将授益于以下群体：

工业设计组织的项目经理，

工业设计师及工业设计专业的学生，

那些雇佣了工业设计师并想了解设计程序的人，

想要涉及工业设计领域或想要寻找更具创意工作的人，

企业业主想要得知工业设计能为他的企业做些什么的人。

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FOREWORD /序

相对于其他西方的专业知识,工业设计(Industrial Design)是一门比较晚在中国生根发芽的专业学科。和邻近的日本、韩国,乃至台湾、香港比较,目前中国大陆的工业设计发展仍处于相对落后阶段。特别是在产生世界级工业设计师的力量上,我们仍有一段艰辛的路要走。但是从“市场经济”的角度来看,无疑工业设计的发展在中国大陆是有着无穷的发展空间和潜力,同时又是令人充满无限希望和期待的。

近年来,因为中国巨大的市场诱因,全世界最优秀的跨国公司、设计组织都以进入中国做为事业经营战略的第一考量,具体呈现在北京的现象就是多家设计巨擘先后在北京成立了工业设计中心。面对这些世界一流的设计组织,身为一个从事工业设计的第一线工作者及工业设计教育者而言,一方面我乐见这些先进设计文化对中国的洗礼,另一方面我也关心中国设计师们如何在这一波设计大潮流中和国际级设计师相互学习合作成长,同时透过多国设计文化的冲击激荡,最终创造出属于我们中国特有的设计文化。

多年的国际公司设计经验,让我有机会接触超过30多个不同国籍的优秀设计师,我发现这些优秀的工业设计师通常具备各种不同的专业能力,有人长于组织,有人长于分析,有人长于创意发想,而他们的共同点就是能“清晰”地表达他们的创意,这些创意通常靠“语言”及“图像”来传达及沟通,通常在这个由西方主导的工业设计界,东方的设计师要用语言(特别是英语)来取胜是比较困难的,所以中国人若想要成为国际级设计师,这种表达“清晰”创意图像的能力,就变成一种不可或缺的能力。基于本人多年服务于国际公司和从事工业设计教育的经验,我相信这种能力是可以被培养及训练的。

Carl是一个有多年国际经验,而且屡获国际比赛奖项的知名设计师,他不但是我们中国设计界的骄傲,同时他的经验及专业能力更是年轻设计师的一个最佳学习典范。我很高兴他终于在百忙中完成这本设计创意的“自传”。从他的这本作品集中,Carl不藏私地表述了他精彩丰富的工作经验,同时有系统地将“创意发想”的过程详加介绍分析;这种实战经验的典范正是目前的中国工业设计业界及教育界最缺乏的!

这本专集完全体现了工业设计作为一门实用科学的特性,透过他本人的亲身工作实战经验以及耳熟能详的知名产品,读者可以感受到创作的亲切感,同时了解创作的程序和方法!透过按部就班的学习,我们绝对相信Carl的经验是可以被复制和转移的。和Carl一起工作多年,我认为他的设计专业及态度绝对是年轻的中国设计师与国际级设计师接轨的最佳途径及学习榜样!在本书中,读者一定能从他精彩的设计经验中得到“创意思维”的共鸣及启发!

让我们一起来分享这本设计老兵的心血,一起为中国的设计天空加上一抹云彩!

Kumo Qiu (Qiu Feng Shun) 2004. 07. 15于北京

序者邱丰顺目前为

摩托罗拉亚洲区设计总监

北京清华大学工业设计系特聘讲师

PREFACE 前言

While Chinese market is growing rapidly, the Asian trend has influenced world wide industries to make the world re-think Asia. Many Asian countries were perceived as world factories. They had been focusing on developing manufacturing capabilities with inexpensive but intensive labors during the development process. China was one of them. The situation is changing now; more and more companies in Asia have realized the brand value and come out their own brand names. They are ready to rumble with the world giants. To achieve the ultimate goals, these cost driven companies have started to understand the importance of design. Unfortunately, design has not yet been brought up to the level it should have been. Most of the countries in Asia do not realize how powerful design can be and how much it can impact on business except Japan and Korea. Sony, for example, is one of the most significant companies using design and innovation to generate cutting edge electronic products and lead the world to the future. Samsung is another successful example to utilize good design for strong brand recognition.

Recent Business Week has articles bringing up more than once that Asian design is getting mature and recognized by many well-known corporations world-wide. Much evidence even indicates that design is slowly moving to the east.

If that so, I do hope Asian designers are ready and prepared for the huge opportunity.

This book is a sketch collection of my work through real design cases. It contains ideation sketches, presentable sketches, exploded views and story boards. There are also a few step-by-step demos for viewers' learning. Due to the lack of drawing courses in most of design schools, I would like to share my drawing styles and techniques with students and designers who want to improve their drawing ability, further more, to utilize the 2D skills for a better design communication.

正当中国市场蓬勃发展的同时,亚洲趋势已经悄然地影响着全球工业,并促使全世界重新思考及定位亚洲。过去中国像许多亚洲国家一样被视为世界工厂,以廉价且密集的劳工制造商品。然而今日此局势已有所转变,愈来愈多的亚洲企业开始明白品牌的市场价值,并也积极地创造自有品牌以晋身国际市场。在创造品牌价值过程中,设计乃是关键课题。然而,不幸的是在亚洲,设计仍然未被充分重视。除了日本及韩国外,大部分的亚洲国家尚未明了设计的能量,也不明白其所能激发的商业价值。SONY公司是善用设计的最佳实例,它屡屡以创新的设计,开发出令人刮目相看,并领先于时代的产品。Samsung是另一个利用设计创造品牌知名度的成功例证。

最近,美国商业周刊不只一次刊载有关亚洲设计的文章,其内容提到逐渐成熟的亚洲设计已渐渐地被全世界企业认同。甚至,更多证据指出设计正在渐渐地由西方向东方转移。

如果上述无误,我诚心地希望所有在亚洲的企业尽快准备就绪,以迎接即将到来的巨大契机。

这本书主要是收集我真实设计案例的原始手稿,内容包含前期的初始草图、构想图、爆炸图和使用情境图。其中也附带了一些简单的示范,以便于读者学习。鉴于大部分的设计院校学生对于学习手绘设计有殷切的需求,藉此分享我的一点经验和技巧,希望能帮助喜爱和重视手绘能力的设计师和学生提升手绘能力,进而达成有效沟通设计想法的目的。

DESIGN PHILOSOPHY >>
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 Design Process
 DESIGN METHOD >>
 Design Process
 Ideation Sketch
 Concept Sketch
 Explored ?, View
 Story
 Drawing
 CASE STUDY >>
 Ipad
 Nike Triax 300
 Kensington
 Qdzone
 Y2k
 STUDENT WORK >>
 SKETCH
 Ap? prodex

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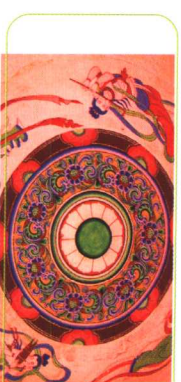
A vibrant, multi-colored collage of various images including landscapes, people, and abstract patterns, with the text "ABOUT ME >>" overlaid in the center. The collage is composed of numerous small, rectangular and irregular fragments of different photographs and illustrations, creating a dense and visually rich composition. The colors range from deep blues and purples to bright yellows and oranges. The text "ABOUT ME" is written in a large, white, sans-serif font, with ">>" in a smaller font size below it, positioned in the upper right quadrant of the collage.

I was born in Taiwan and finished my Junior College degree of Mechanical Engineering in Taipei. After college, I joined Army to serve my duty for two years. Life in Army was very tough in general. People from all over the country having extremely different backgrounds have to live and work together. Some people were very hard to deal with and always wanted to take advantage of others or bullied around. I did not have other choices but to learn to live with it and tried my best to survive. Many people say the Army turns a boy to a man. I believe it because my survival skills and strong wills that I have trained from the Army get me through all these years till today.

I found out Industrial Design by accident when I was fifteen years old. My uncle loved books and he always brought books and foreign magazines to us children. One time he brought in a magazine called Design World. I was very attracted by all the pictures and articles in the magazine. One of the articles was written about a design firm in Australia. Designers worked in a bright and spacious modern glass house drawing new stuff I had never seen. I pictured myself sitting in the room and sketching... My dream started from that moment. I was not able to study Industrial Design because there were only a few universities having ID major and my study grade was not good enough to for me get in any of them. So I studied Mechanical Engineering instead because I thought it was probably close enough to Industrial Design. Obviously, I was wrong. I still carried my dream after I retired from Army. I took a TOFEL test but failed to pass and to be accepted by any art school in USA. My parents were thinking about moving to Canada at that time. Therefore, they decided to send me oversea and see if I could get in a good art school after taking some ESL (English as second language) courses. Somehow I knew this was my last shot to catch for my dream and I could not let it slip away.

我出生于台湾，在台北完成机械工程的大学学位。大学毕业后随即前往服两年兵役，于服兵役的两年中，我体会了前所未有的艰辛生活。军中的同伴来自四面八方，有着各式各样的背景故事。所要面对的第一难题即是团体生活。龙蛇杂处，总有人难以相处，我毫无选择地必须竭尽所能适应其中而求生存。有人说男孩因为服兵役而成熟，成为顶天立地的男人，对此我完全赞成。兵役对我的影响极大，至今，我的生存方法和面对困难的勇气，很多都是得那两年兵役所赐。

在我15岁那年，意外地发现了所谓的工业设计。舅舅嗜书，并且经常将国外的书籍和杂志带回家里给我们这群小孩翻阅，有一天，舅舅带来了本名为《Design World》的杂志。我不禁被其深深地吸引。当中有一篇文章，刊载着一所澳大利亚的设计公司的介绍。图上显示着设计师们正于一处明亮摩登现代化的玻璃屋内创作着很酷很炫的作品。由于当时的我从未见过这样画面，喜出望外之余，幻想着自己能置身其中，设计师之梦便从此展开……但是工业设计之路并非从此一帆风顺。由于当时台湾的大学中的工业设计科系相当稀少，再加上大学联考成绩并非极佳，因此没有顺利考上工业设计系，而选择了机械工程系，误以为此二者相当近似。我当时的想法显然是错误的。之后，依旧怀着梦想，想借托福考试进入国外学校学习工业设计，然而后来由于托福成绩不理想而告吹。就在当时，我父母亲有意移民加拿大，他们深知我执着于工业设计，因此决定助我一臂之力，让我到加拿大的语言学校学习英文。为了圆梦，不再让机会溜走，我知道必须把握住这最后一次机会。



Life in Vancouver Canada was so different from where I grew up. Everything was so new and interesting to me. Besides the school class, I attended many after school activities. That really helped me to open up myself by socializing with people from different countries and understanding their culture better. Influenced by the beautiful city and friendly people there, I started to become a more optimistic person.

I could not remember how many times I failed on TOFEL test before I finally got accepted by an art school in San Francisco, California College of Arts and Crafts. The good thing about this college was minimal portfolio requirement for students entry. I moved to Oakland and shared a house with two other students as well as the house owner. Most of my classes of the first semester were art foundations. I worked extremely hard and spent lots of time on my homework and projects. I only slept three to four hours a day and countless nights I worked all nights without any sleep.

I still remember in the first Basic Drawing Class the instructor asked every student to draw the still objects so he could tell students' skill level. I was too embarrassed to show my work because my drawing was so awful compared with other students' work. Well, I was probably the oldest student in that class and my drawing stank. I whispered to myself that I could not lose my face and I had to work on my foundation skill extra hard. My hard work finally paid off. The end of that semester I got an A- from my highly respected professor who had only given out three A's to his students during his twenty-year teaching career according to the seniors. Actually, I thought my work was not necessarily the best in the class but my tremendous improvement was definitely recognized. For other studio classes, I was able to learn fast and to do quite well.

到了加拿大后，那里的生活环境和从小到大接触的事物迥然不同，它们新颖而有趣，因此除了平时的课程外，一有机会即积极地参加许多的课外活动，由于时常和不同国家及不同文化背景的人接触，心胸和视野因此得以开拓。并且由于周遭优美的环境和友善的朋友之影响，亦促使我成为一位较为乐观的人。

皇天不负苦心人，经过持续不断的努力，再加上当时此学校对于作品集的要求并不太高，因此终于得以申请进入旧金山的加州艺术学院 (CCA) 就读。之后，我搬到了奥克兰，和另外两位学生一起合租房屋。我大部分第一学期的课程都是基础艺术相关科目。每天只睡眠三小时，经常彻夜不休，夜以继日，倾心尽力只为做好作品。

记得在第一堂基础绘画课时，老师要求每位学生练习静物画，借以得知学生的程度。当时自觉丢脸，因为和其他同学的程度落差甚大。因此，我警告自己必须加紧努力。第一学期结束时，这位我相当敬重的教授，他竟然给了我A-的成绩。后来得知，这位教授在他20多年的教学生涯中，只给过三次A级的成绩。事实上，我知道我当时并非是最优秀的，他给了那样的成绩是为了肯定我的长足进步和努力。由于持续的耕耘，我于其他的课程的表现亦渐入佳境。



The end of my freshman year, there was an annual All-Collage-Student Competition for scholarship. I was suggested to try for an entry by a friend. I wasn't confident enough to submit my work when I found out I was going to compete with more than one hundred students but I did it anyway. Two weeks later, I got a letter from the scholarship committee to inform me that I had won the first prize. I could not believe what I saw. I was so happy and excited and kept saying I did it to myself. This experience was one of the important highlights in my life because this honor was the first major achievement through my entire student life, not to mention I was a foreign student trying to study an unfamiliar subject.

I finally started Industrial Design 1 in my winter semester. I began to feel my English wasn't good enough to fully understand most of the design theories. I had to write papers to describe my emotion then translate the abstract feeling to a conceptual physical model. I often misunderstood the subject and spent efforts on a wrong direction. No matter how hard I worked I seemed always missing the target. I got really frustrated and lost my interests to go to the class. I became very anxious before going to the class because I just could not get it. Even though I did not understand most of the design philosophy I still tried to remember what was taught by the instructors. I somehow managed to hang on and barely made it through. The coming semester was a lot better and easier for me because I started to design something tangible and practical. I designed a coreless phone, a spatula and a parking meter. I did pretty well in the class and gained my self-confidence again.

一年级结束时，朋友鼓励我去参加年度的奖学金竞赛。当时对于将和数以百计的学生评比竞赛，并无信心，因此退缩的念头油然而生。几番挣扎后，下定决心，全力以赴。两星期后，奖学金委员会寄来通知，告知我赢得了第一名。当时的我觉得这消息难以置信，但也激动万分，并不断告诉自己做到了，这画面至今历历在目。在此之前，我从未从学校中获得如此殊荣，也从未想过竟然有机会以一位外国学生的身份赢得此奖项，更别说于一年前，设计并非我的专长。此事件是我人生中的一个重要的里程碑，它像一盏明灯似地点亮了我的人生，意义非凡。

冬季学期开始之后，我终于得以开始上工业设计课。之后我发现由于英文能力不足，使得我无法充分理解设计理论，也无法有效地运用语言表达对于概念模型的感觉。无论我尽多大的努力，最终总因释题错误，而前功尽弃。当时这堂课令我觉得挫折而沮丧，纵使有时还是不能融会贯通那些设计哲学，我依然尽我所能地去记住课堂上所教授的知识，珍惜所有些许的进展。所幸，下一学期的工业设计课的内容和上一学期有所不同，主要是着重于实物设计，在此课程中，我设计了无线电话、铲子以及停车计时表。由于表现得十分出众，那曾经失去的自信心，再度被我逐渐地拾回。



During my study in CCAC, I always heard other students talk about the Art Center College of Design in LA Pasadena. I had read about the school and knew it was very difficult to get in and even more difficult to graduate from. The minimal 550 TOFEL requirement was scary enough for me. I decided to check it out anyway. I drove about six hours from San Francisco to Pasadena then finally got to the school. It was probably a holiday or between semesters because the buildings were locked. Through a tinted glass, I could see some stuff inside the building. Once I stepped up and took a better look, I was absolutely blown away by what I saw on the other side of the glass. Beautiful design projects were nicely presented in a spacious gallery. I must have acted like a fool sticking my face on the glass for at least half an hour. Later I found out that Art Center had a Night Class program. I decided to take the summer term off and packed my stuff to LA. Although I only attended class at night I spent a lot of time on the campus to learn from other students.

I did quite well in the Night Class so I tried to apply for the transfer. Usually for foreign students we had to pass the English test and then the school would go through our portfolios. Once again, I was facing my biggest barrier, the TOFEL test, which failed me many times and I would hate to take another one. I scored 543 this time but the minimal was 550 to get in. Two weeks left before going back to CCAC. A note from school told me the chairman saw my portfolio and he liked it very much. I could even start from the second semester if I could pass the English test according to the school regulation. I had one last chance left or I had to return to CCAC. I had strong desire to transfer to Art Center not only because it was the best design school in America but also the class and program were more fit for me.

就读加州艺术学院CCAC期间，加州Art Center学院的美谈嘉言不绝于耳。传言它的入学门槛很高，毕业门槛更高，托福最低分要求550，这对我来说并不容易，但是还是决定去看看。从旧金山开了六小时的车到达了Pasadena，也许是适逢假日，Art Center的大楼大门紧锁，虽然如此，我依然能从暗黑色的玻璃看到陈列于开放式展厅中的作品，眼前件件充满创意的学生佳作令我赞叹不已。由于被眼前的景象所迷惑感动，为了看得更清楚，我像傻子一般紧紧地将脸贴着玻璃近半小时，不久之后得知Art Center亦有夜间课程，因此决定暂停CCAC的暑假课程，而前往Art Center进修。虽然当时只进修它的夜间课程，但是为了有更大的收获，我尽可能地待在校园，耳濡目染，以求更快速的进步。

由于深信Art Center是全美最佳的设计学校，也体会到Art Center的训练方法和课程相当适合我，并且因为在夜间课程中，已获得了相当不错的成绩，因此毅然决定地决定申请转学。一般学校规则中均规定国外学生必须先通过英文测试，才会进行作品级评选。由于当时英文托福是我薄弱的科目，而第一次的托福成绩仅仅543分，并不符合要求。假如不能在两周内通过考试就得回CCAC。就在这时，得知学校主任非常欣赏我的作品集，他允许我在通过英文测试后可以直接进入第二学期上课。

