



普通高等院校设计类专业精品规划教材

立体构成 与造型基础

—— 立体元素与表达
张旭生 应卫强 应放天 编著 陈实 译



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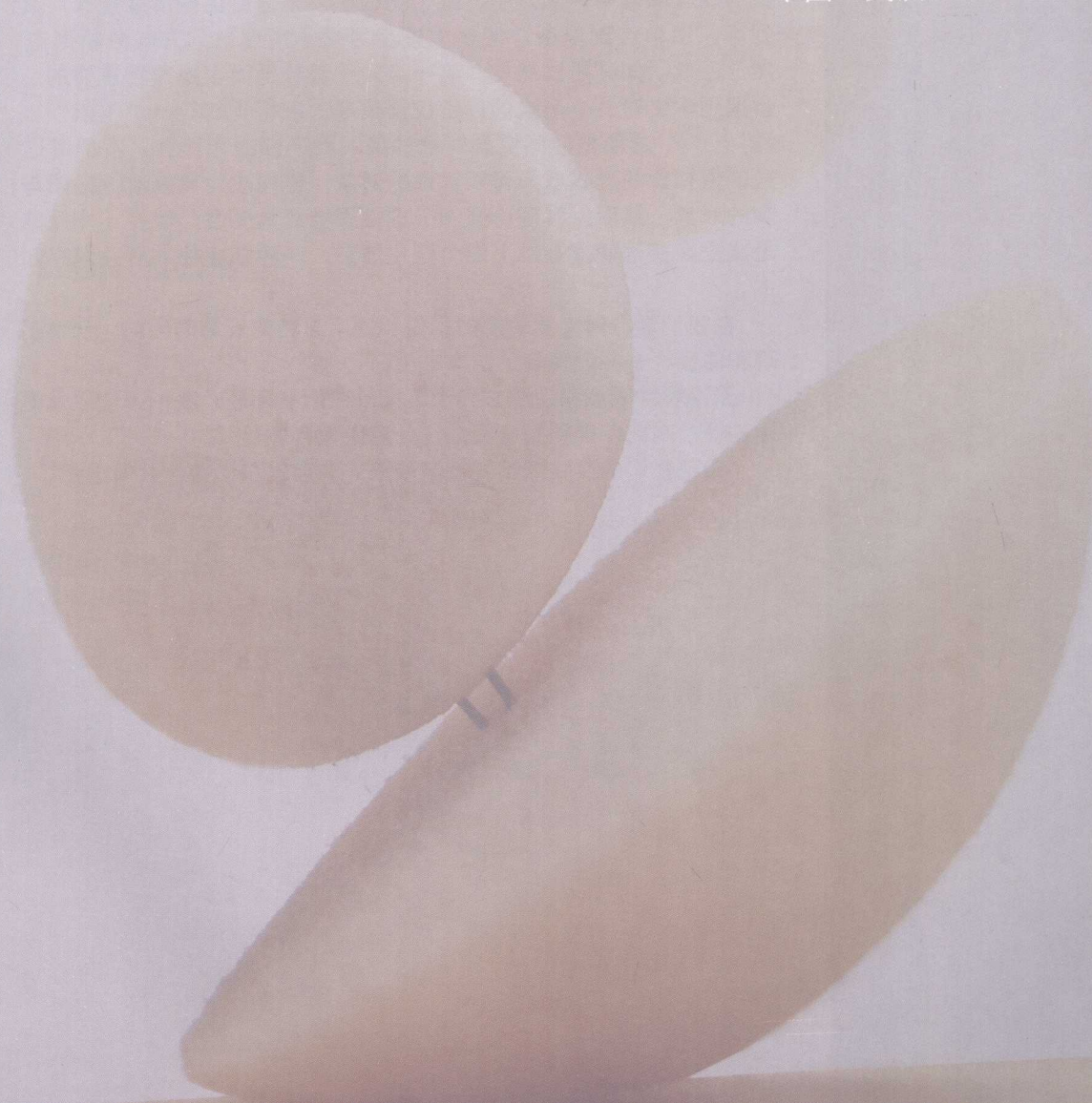
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前言

毋庸讳言，视觉自设计诞生之时起就是其重要组成部分。在学校设计基础教学活动中，特别是在社会经济高速发展，消费能力增强，对设计的要求迅速提高的背景下，我们在不断探索用多种方式提高学生在视觉形式方面的创造力。这些不同的方式、方法都有其各自的优点和不足，并互为补充。我国的设计教学仍处在很不成熟的阶段，承担着学习国外先进经验和根据国情自主创新的双重任务，而且这将是长期的过程。本书的出版，其主旨也在于通过我们的课程实践，为大家提供一个未必成熟但可以借鉴的案例。

本书的课题内容来自罗伊娜·里德·科斯塔罗的视觉构成教学体系，我们将其部分课题内容引入课程，是对其教学理论的实践。并将实践过程中的学生作品、制作过程、体会以及点评加以总结集合而成。

通过课程实践可对罗伊娜的教学理论方法有更深入的理解和体会，其中包含非常丰富的关于视觉构成的认识：首先，对抽象的视觉形式规律的概括提炼，并融入形象的课题练习中，通过手、眼、脑的协同来体会这些形式规律。其次，使课题由简到难，由单纯到复杂，使学生逐步习惯于用理性的方式分析形态，不仅要“知其然”还要“知其所以然”。这一点对于设计师而言是非常重要的。在教学中，经常会遇到学生对一个形式的评价仅停留在“挺好看的”、“不错”、“很美”、“很酷”……这便是能感觉到对象的美，而不知道为什么。罗伊娜这种理性的思维方式使得抽象的形式成为可以言说的对象，进而成为可以进行描述与根据意图加以控制的对象。最后，其理论强调了理性思维的重要性，但并不排斥感性思维的部分，是建立在普遍规律基础上的个性化创造，一种能被他人所共同感知的个性化思维构成。

在我们学习体会罗伊娜的思想和她所总结的规律的同时，仍然有属于自己的新发现和体会，一并汇集到了这本书中。

无论哪种观点和训练方式都不能解决所有问题，我们不能以偏概全，执其一而排斥其他，唯此才能得到全面的设计基础教育体验。

希望我们的实践能给同行者带来一些启发和借鉴，共同进步。

编者 于浙江大学
2008年8月

Preface

There is no doubt that the vision is the important constituent when the design was born. The school design foundation teaching activity has been exploring many kinds of ways to enhance the student's creativity continuously in the visual form aspect, especially under the background of the social economy high speed development, expense ability strengthens, the design request enhancing rapidly. These different ways and means all have its respective merit and the insufficiency, and is mutually the supplement. Our country's design teaching is still at its beginning and face with twofold tasks that is studying overseas advanced experience and innovating independently basing on national condition, and it will be a long-term process. The primary intention of the publication of the book lies in through ours curriculum practice to provide one case for everybody that be to profit but not necessarily.

This book's topic content comes from Rowena Kostellow's visual constitution teaching system, its part of topic content be introduced to curriculum, is to practice its teaching theory. This book is composed of student's work, the manufacture process, the experience, the review and summarizes in the practices.

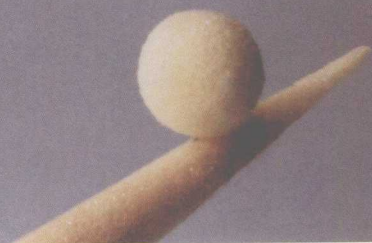
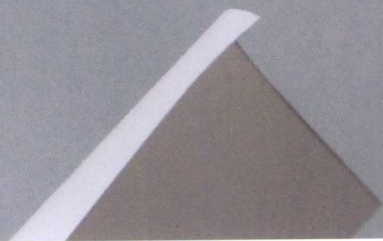
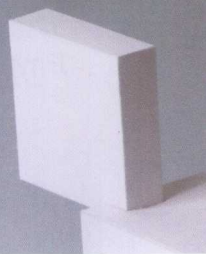
Through the practiced curriculum, we had a deeper understanding and the experience with Rowena's teaching theory and method. Firstly, to summarize and refine the abstract visual form and rule, to integrate the image in the topic practice, and to realizes these form and rule through the hand, the eye, and the brain's coordination. Secondly, to cause the topic from simple to difficult, from purely to complex, to cause the student to be accustomed to gradually uses the rational way to analyse shape, not only wants "to know its however" also wants "to know its reason why". This point is extremely important to the designer. In the teaching, it is often heard that the student frequently only to pause to a form appraisal in "very well looks" "good" "very beautiful" "very cruel"... They can feel the object's aesthetic feeling, but doesn't know the reason. The Rowena's rational thinking mode causes the object which the abstract form becomes may speak, then becomes may carry on the description with the object which controls according to the intention. Thirdly, although its theory emphasized the importance of rational thought, simultaneously does not repel the part of perceptual thought. This is the personalized creation establishing in the universal law foundation, one kind personalized thought constitution can sensed commonly by other people.

When studying Rowena's the elegant thought and her summarizing rule, we still have some recent discovery and the experience that belonged to own, and collected in this book.

On the other hand, regardless of which viewpoint and the training way all can't solve all problems, we cannot draw conclusions from a part, hold its one repel other, only so can be under the comprehensive design elementary education.

Hoped our practice can give the colleague to bring some inspirations and the model, to progresses together.

Author in Zhejiang University
2008.8

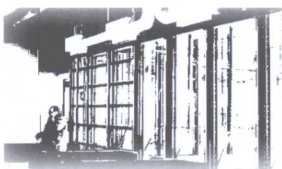
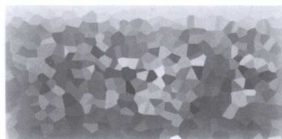
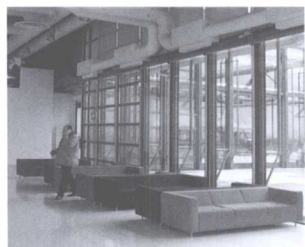


环境
Environment

看
Look

见
See

生物能量编码
Biology energy coding



古典绘画

西方古典绘画、雕塑艺术以客观现实世界为对象追求真实的美。通过再现人、物、事件来传达情感、思想和追求。
Western classical painting and sculpture art take objective reality world as object pursue real aesthetic feeling. Through reappearing the human, the thing, the event to transmits the emotion, the thought and the pursuit.



抽象艺术

1. 客观视觉对象从被人的眼睛感知到最终在人的心理上产生反应，这是一个非常复杂的过程。了解这个过程的作用原理和规律，特别是“见”与“心理作用”两个互逆的过程，对于我们学习设计是必要的。
2. 抽象化的视觉表达是我们所要探讨的主要内容，是最普遍和最基本的视知觉规律。
3. 作为视觉语言的初学者，我们犹如婴儿，必须从头开始并不断练习。

02-19

课题一 立方体

20-39

课题二 曲面

40-63

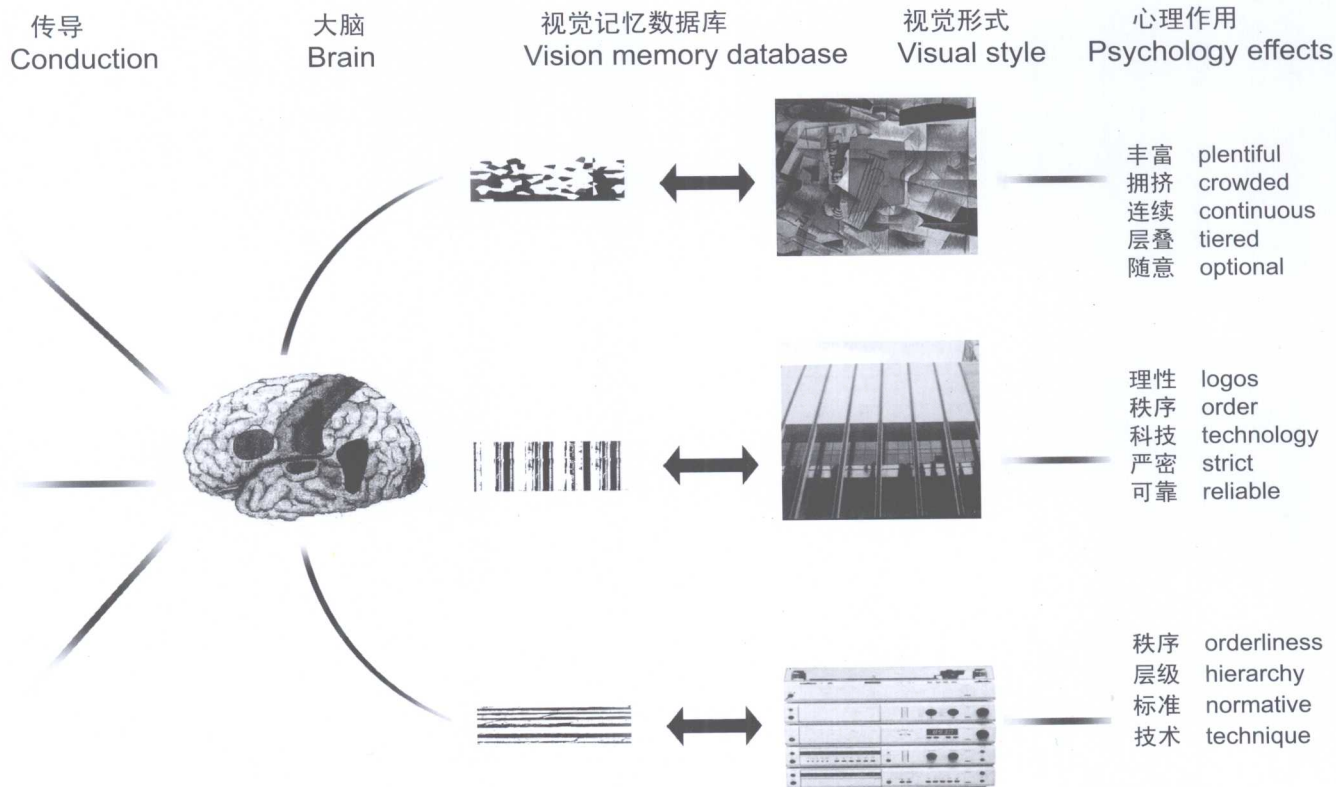
课题三 曲面体

64-79

课题四 凸面

80-99

课题五 重构



现代抽象艺术则通过抽象的形式直接作用于人的视觉和心理，产生更加强烈的刺激，并引起人的心理变化，使抽象的形式摆脱客观现实对象的束缚，成为独立的审美对象。现代产品、建筑等成为抽象艺术语言语用的载体，在这一点上，抽象艺术成为设计美学的引领者。

Through the abstract form, the modern abstract art acts directly to human's vision and the psychology, has a more intense stimulation, and causes human's psychological change. It makes abstract get rid of the fetter of the reality object, becomes the independent esthetic object. The modern product, the building and so on become the carrier which the abstract art language uses, on this, the abstract art becomes the anticipator of design esthetics.



现代设计

特定的样式以其视觉特性作用于人的视知觉，引起人的共鸣，是对设计的主要诉求之一。

The specific style by its visual characteristic function and the human is a consciousness, causes human's sympathetic chord, is to one of design main demands.

1. The objective visual object is finally produced by human's eye sensation in human's psychology response, is an extremely complex process. It is necessary for us studying the design to understand the mechanism and the rule of this process, especially the two reciprocal processes of "sees" and "the psychological process".
2. The abstractive visual expression is the primary coverage which we discuss, is the most universal and most basic visual consciousness rule.
3. As the beginner of visual language, we just like the baby and must start and practice unceasing from the beginning.

课题一 立方体

课题提示

1. 此课题作为最基础的课题，主要探讨了三（或多）个立方体（或其他物体）组织在一起形成一个整体时，各要素之间的基本关系，以及创造动人视觉形式的基本规律。
2. 通过此课题导入比例、轴线、连接构造、平衡、动势等基本概念。
3. 课题排除了色彩、材料、曲面、轴向的变化等造型因素，使课题尽量变得单纯、清晰。
4. 课题强调理性分析基础上的直觉判断，设计师对于形式感必须能够加以控制和约束。
5. 课题强调大量的快速草模实验，在反复比较中提升视觉的判断力。正如任何一项技能，不练是不可能真正掌握它的。

课题要求

1. 制作立方体组合，造型独特而富个性。
2. 数量：20组/人。
3. 材料：白卡纸。
4. 时间：2周。

Project 1 Cube

Presentation

1. The most foundation topic has mainly discussed basic relations between various essential factors when three (either many) cubes (or other objects) are organized to form a whole together. As well as creating basic rule of vision form which moving.
2. To inducts the proportion, the spool thread, the connection structure, the balance, and kinetic potential and so on the basic concept through this topic.
3. The topic removed the color, material, curved surface, axial change and so on modeling factors, causes the topic to become pure and clear as far as possible.
4. The topic emphasize indubitable judgment based on rational analysis, the designer must be able to control and restrain the form feeling.
5. The topic emphasize massive fast grass mold experiment, promote visual judgment in compares repeatedly, just like any skill, no practice is impossible to grasp it truly.

Topic Requisition

1. Manufact cube combination, modeling unique and rich individuality.
- 2.Quantity: 20 sets / person.
- 3.Material: Plain paperboard.
- 4.Time: Two weeks.

基本概念

固有比例：每个形体的长、宽、高的比例，形成立方体的独特个性。

相对比例：一个形体与另一个形体的比例，占有空间的比列。

整体比例：组合后形体的整体比例特征。

主导元素：体量最大的一个，在组合中占主导地位。

次要元素：次要元素的加入使组合特征更加生动，通常在轴线方向、固有比例、结合方式上加以变化。

附属元素：附属元素使组合更具三维感、对比感，使组合更具特征。

轴：固有比例的不同使得形体具有不同的方向感，轴是隐藏在形体中的重要视觉元素。

形体联接方式：楔入、支撑、相贯。

Leading element: Amount of space occupied the biggest one occupies the dominant position in the combination.

Secondary element: Joining the secondary element causes the combination characteristic to be more vivid, and usually in the spool thread direction, the inherent proportion, and the union way performs to change.

Attached element: The attached element causes the combination to have more three dimensional feeling and contrast feeling, causes the combination to have more characteristic.

Axis: The inherent proportion enables the physique to have the different sense of direction, the axis is important visual element hiding in the physique.

Physique joint way: Keys on, the support, passes through.

主导元素

次要元素

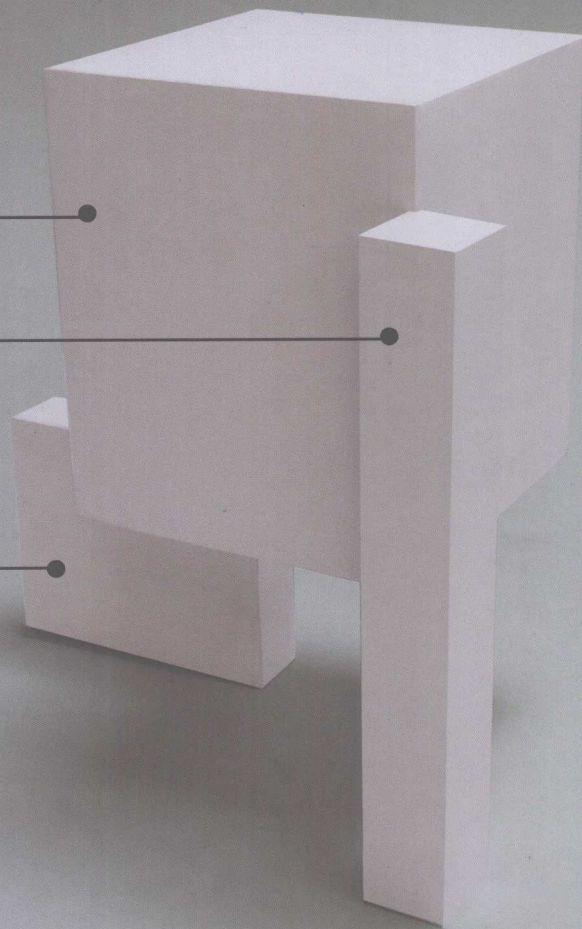
附属元素

Basic Concept

Inherent proportion: Each physique length, the width and the high proportion form the cube's unique individuality.

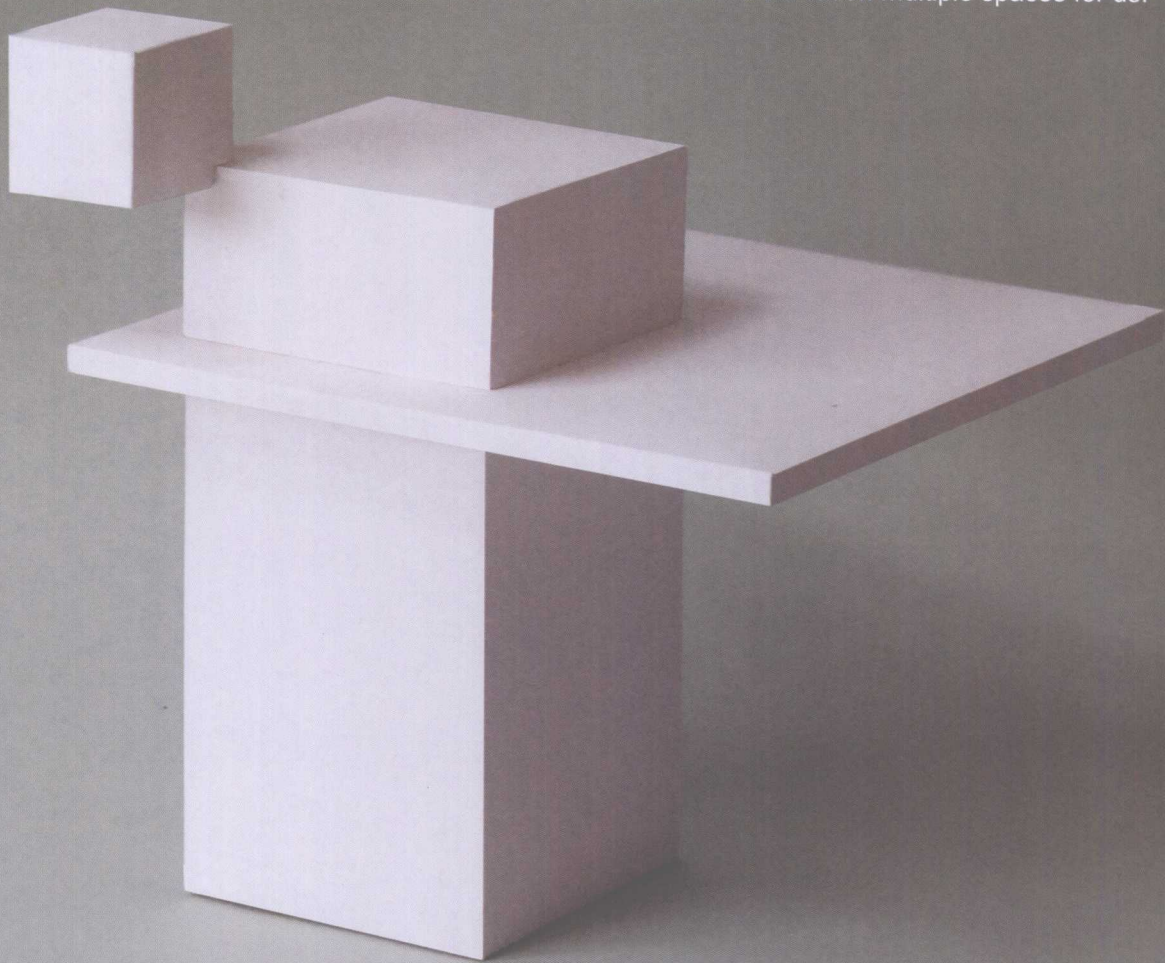
Relative proportion: A physique with another physique proportion, holds the spatial proportion.

Overall proportion: After combination physique overall proportionable characteristic.



“多样性统一”是视知觉过程中普遍适用的基本原则，多样可以产生丰富的个性，统一可以形成完整的识别性。比例、轴向、连接方式的变化会形成极其丰富的多样性；主导、次要、附属元素的关系使组合具有统一的性质。课题中白色、立方体、垂直轴的限定为我们提供了充分探讨组合多样性的空间。

The multiplicity is unified" is regards the universal suitable basic principle in the process of perception, diverse may have the rich individuality, the unification may form the integrated recognition. The change of the proportion, the axial, and the connected way can form rich multiplicity, the relations of the leadership, the secondary, the attached element enable the combination to have the unified nature. The topic definition of white, the cube, the vertical axis has provided the full discussed combination multiple spaces for us.



主导元素与附属元素特征对比鲜明，分别向各自空间发展，形成很好的三维感。附属元素的加入取得了良好的平衡效果，使组合更加生动。

The leading element and the attached element characteristic contrast is bright and develops separately to respective spatial and has very good three dimensional feeling. The attached element joined has obtained the very good balanced effect, caused the combination to be more vivid.

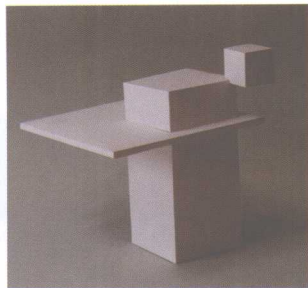
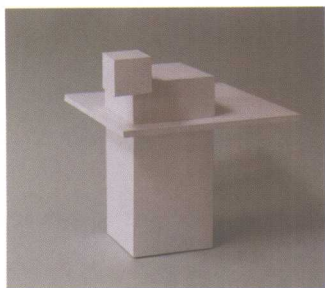


“以前自己在评价一个作品时，只凭感觉，从来不会对它有一个理性的认识，嘴巴上总挂着一句‘感觉好，感觉不错’，但是从没问过自己它为什么好？好在哪里？”“在这幅作品中我选取了三个固有比例相差较大的直棱体，分别作为主导形体、次要形体和附属形体。在他们的连接方式上我选择了楔入和相贯这两种方式。”“我不断从所有的角度对我的设计进行构想，并且尝试不同的连接方式。最后选取了自己最满意的一种形式。”

对课题进一步的理解有助于我们深入体会课题训练的要点。在所有的形态中纯白色的立方体是最简单的形体之一。三也是代表“多数的”最小数字，之所以做出这样的选择，是因为课题的目标是要探讨最为单纯的三个元素之间的组织形式及其效果之间的内在联系及规律，同时也是一切复杂组合的基础。以各种方式组合的立方体既代表其本身，也代表其他形式的物体。

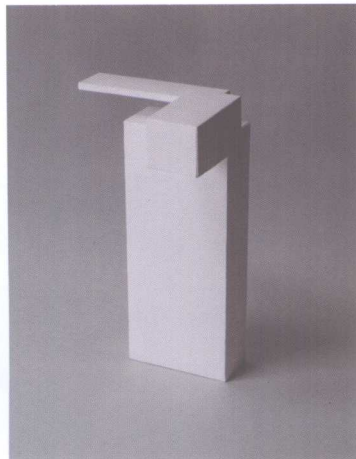
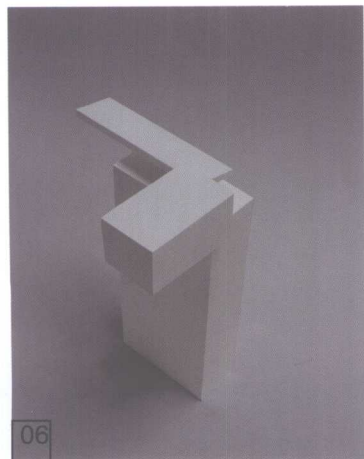
"Before when I appraised a work depending on the feeling, always could not have a rational understanding to it only on the mouth always hangs one "to feel, felt good", but ever had not asked myself why good it is? Where is the good? I selected three straight bank or ridge between three fields body which differed big in inherent proportion in this work to take the leading physique, the secondary physique and the attached physique separately. I chose key on and pass through these two ways in theirs connection way. I unceasingly carry on the conception and the attempt different connection way from all directions to my design. Finally I has selected own the most satisfactory one form."

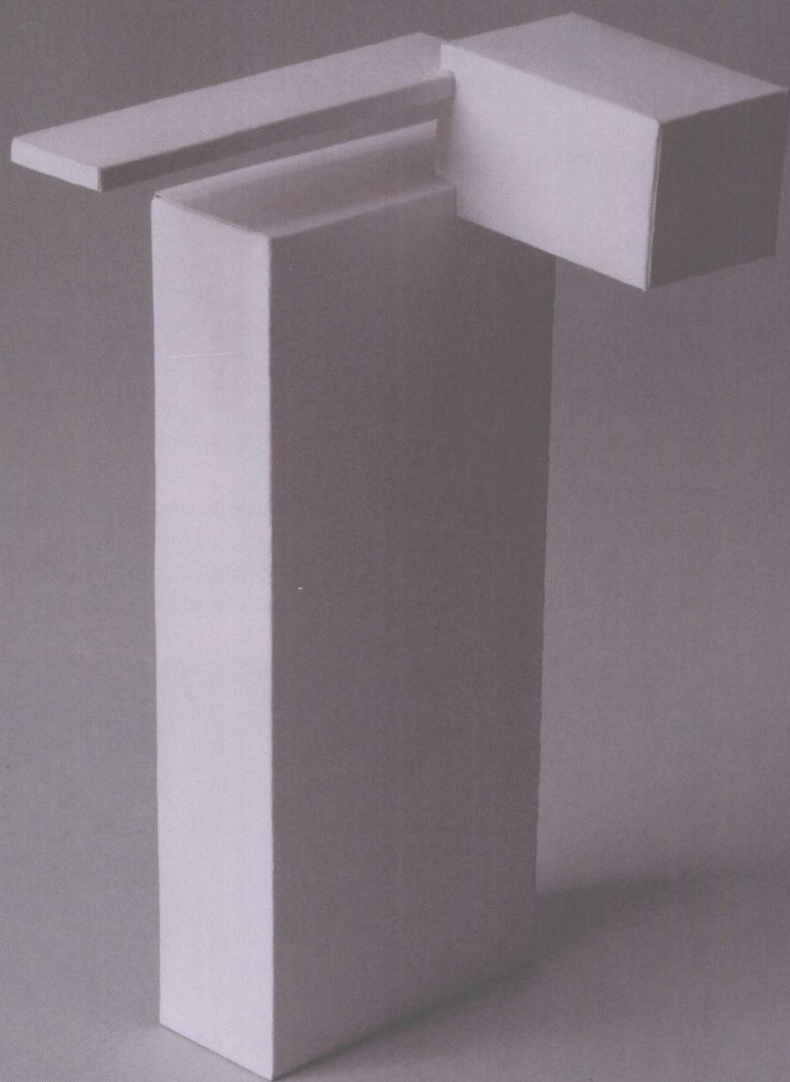
The further understanding to the topic is helpful to us realizes the topic trained main point. In all shapes the pure white cube is one of the simplest physique. Three cubes also represent the smallest numerals. The reason that makes such choice is because the topic goal is needs to discuss between the organization form and the effect inner link and the rule among the purest three each one element and is the foundation of all complex combination. By each way organization's cube not only represents its itself, but also represents other forms the object.



“在做这个作品时，我想从垂直方面夸大它的形体。因此我选了一个长方体做为主导形体。同时使每个形体的轴线方向都不一样，强调垂直方向的同时加入横向发展的附属元素，和向上发展的主导元素形成对比关系，产生了戏剧性的节奏，像是突然停顿后疾驰而去。底部简洁明快，顶部变化层次丰富，使整个形体看起来既统一又具有很强烈的节奏感。”

"When making this work, I want to exaggerate its physique from its vertical aspect. Therefore I chose a cuboid to do for the leading physique. Simultaneously I causes each physique the spool thread direction not to be all dissimilar, emphasizes the vertical direction at the same time joins the crosswise developing attached element and the upward developing leading element. This has formed the contrast relations , had the theatrical rhythm and is likely stops suddenly and goes speedy away. Succinct and sprightly base and rich level changing the crown make the entire physique look like unification and have the very intense rhythm feeling."





课题制作过程中，经常出现的问题：

1. 主导元素、次要元素、附属元素之间缺少对比，固有比例和相对比例接近；
2. 容易陷入自己的无意识行为习惯中，制作的立方体单元固有比例或相对比例过于相似，导致组合形体单一而死板；
3. 连接方式过于单一或同一连接方式缺少变化；
4. 缺乏突破和创新的愿望与勇气，在已有组合上重复；
5. 组合不能从各个方向看上去都具有良好的视觉效果。

为了方便进行立方体组合和思考，事先制作大小、比例不等的立方体若干以备组合之用。制作立方体的材料可以用卡纸，也可以用雕塑泥、橡皮泥等容易成型的材料。

In order to facilitate carries on the cube combination and ponder, manufacturing the size, the proportion different cube beforehand certain to prepare using of the combination. Manufacturing the three-dimensional material may use the carton, also may use the material manufacture which the sculpture putty, the children's modeling clay and so on easy to take shape material.

In the topic manufacture process, the question appears frequently:

1. Between the leading element, the secondary element, the attached element the contrast is lacking, the inherent proportion and the relative scale are closed.
2. It is easy to fall into own unconsciousness behavior custom. It is too similar in the manufacture cube unit inherent proportion or the relative scale. This cause the combination physique to be unitary and stodgy.
3. The connection way is too unitary or the identical connection way lacks the change.
4. Lacking the breakthrough and the innovate desire and courage, duplicating the combination that have been.
5. The combination cannot look has the good visual effect from each direction.

