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德国新医院设计

NEW HOSPITAL DESIGN IN GERMANY

辽宁科学技术出版社



德国新医院建筑

NEW HOSPITAL ARCHITECTURE
IN GERMANY

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著作权合同登记号: 06-2005 第 186 号

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图书在版编目(CIP)数据

德国新医院建筑 / (德) 克里斯廷·尼克·韦勒, (德) 汉斯·尼克著; 李丹, 周艳娟译. — 沈阳: 辽宁科学技术出版社, 2006. 8
ISBN 7-5381-4757-8

I. 德… II. ①克… ②汉… ③李… ④周…
III. 医院—建筑设计—作品集—德国 IV. TU246.1

中国版本图书馆 CIP 数据核字(2006)第 053220 号

出版发行: 辽宁科学技术出版社

(地址: 沈阳市和平区十一纬路 25 号 邮编: 110003)

印刷者: 利丰雅高印刷(深圳)有限公司

经销者: 各地新华书店

幅面尺寸: 240mm × 320mm

印 张: 58

字 数: 361 千字

插 页: 4

印 数: 1~2500

出版时间: 2006 年 8 月第 1 版

印刷时间: 2006 年 8 月第 1 次印刷

责任编辑: 陈慈良

封面设计: 庞 静

版式设计: 袁 姝

责任校对: 周 文

定 价: 298.00 元

联系电话: 024-23284360

邮购热线: 024-23284502

E-mail: lkzsb@mail.lnpgc.com.cn

<http://www.lnkj.com.cn>

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Trennseiten: Müller-Naumann, Stefan

前言

医院建筑是不是应该具有独立的风格，换句话说，当代医院建筑应采取什么样的风格更为恰当。

作家 Michel Houellebecq 在他的《超市世界》一书中谈到“当代建筑的风格力求简洁”，揭示了建筑的独立存在价值，建筑特点的价值只存在于一瞬间，而且一般地说也很少能展示出它的建造过程（所以说在介绍建筑的同时介绍其设计者是很普遍的）。

当代建筑的风格更加注重功能性。但是在注重功能性的同时，美学的观点也是不容忽视的。本书涵盖了近 10 年建筑发展过程中，大量符合这一理念的医院建筑——设计理念以功能性为根本，同时也符合现代的美学标准。

很长时间以来，人们相信随着技术的发展，疾病都是可以攻克的，技术的发展必须受到重视。这也意味着技术的发展只是一种手段而并非最终的目的，必须在社会价值观的范围内进行。对于医院来说，这些都是得到尊重的价值所在。是建筑把计划中的最重要的元素结合起来：建筑与景观的结合，技术和建筑的结合，建筑与空间设计的结合。所有这些都是以“希望”为宗旨的。这也是病人与疾病作斗争时最为重要的。医院建筑永远是一个富含多种元素的结合体。因为在大多数情况下，从设计到实施需要经过很长的周期，这也就要求把新的政治的、社会的和医学技术的变化发展结合在一起。

为了更加深刻地了解医院建筑，我们必须了解它在社会历史背景下的发展历史。现代医院和其前身不像其他的社会机构那样，它可以追溯到很久以前，而且和西方的基督教信仰有

着极为密切的联系。是西方慈善机构设计基督教信仰的产物，它的宗旨是帮助老人、穷人、无家可归者和病人。随着历史的发展，逐渐形成了我们今天的公共医疗机构。

1789 年，百科全书的编著者 Johann Krünitz 把德语中的“Kranken-Haus”或“House”定义为给病人提供帮助和治疗的地方。并特别强调是治疗性质的医院，如：妇婴医院、精神病院等，而不是传染病防疫站、孤儿院或养老院。

到了 18 世纪，社会福利机构成为了人们关注的焦点，这时的医院除保留了原来的治疗功能外，开始形成一些分隔开的建筑。也就是在这时，在医学治疗和现代社会福利发展的历史背景下，原有的对于医疗护理的（源于中世纪）概念完全被打破。这种变化源于对社会福利的要求增加：福利事业已经完全失去了其宗教色彩，而是成为了社会和政府的一种责任。

到了 20 世纪 70 年代，分科的医院建筑开始在德国出现，医院成为了一种机构，并且医院的系统性建筑设计也开始了。这一系统中包括几个独立的建筑，根据不同种类的医院进行建筑，并且通过改良医院的通风系统改善医院的卫生等级。分科对病人进行治疗，减少了疾病的传染性，这在当时还并未被完全意识到。此外，医院的各个部门、科室也被分隔开来，建造在城镇的不同地区，形成了一个医疗网络。

从 20 世纪初至今，医院已经发展成为为了全民服务的多功能、高技术机构。以上介绍了医院的发展，医院真正从单纯帮助病人和弱者，转变成了为人们提供真正的医疗技术服务。本书举例说明了这一发展过程，而这一发展也将越来越快。

从 20 世纪 60 年代到 70 年代初，科学技术

是主流。普遍的观点认为医疗器械可以解决一切问题,而病人本身只被当作一种物体。这一理念可以在当时的医院建筑上明显的表露出来。这些大型综合性医院的例子在汉诺威、慕尼黑、亚琛和法兰克福随处可见。

在以前的原德意志民主共和国,这种发展表现在大量的医院建筑,如柏林Charité 医院和莱比锡大学临床中心。

这一时期发展过程中一个有趣的例子是专家门诊的建设,而今天又重新得到重视。现在,同样性质的医疗门诊又以前东德的模式发展起来:在城市里成立医疗中心,而在乡村成立网络门诊。

直到20世纪80年代末,人们对于传统医院的观点才完全的被取代,病人在大型综合医院里所造成的不便,导致人们对小的使人恢复信心的设计的怀念。这也是本书所关注的重点。“医院建筑”这一主题包含很多的内容,从介绍小的、提供基本医疗服务的医院开始,到一些专家门诊,再到大型综合性医院、临床中心和大学医院。为了能更好的了解发展的过程,本书的章节按照:新医院建筑、利用现有设备进行改造的医院、改扩建的医院建筑和专家门诊。医院建筑的复杂性致使在有些情况下,我们的分类不是很明晰。尽管如此,我们希望尽可能全面地介绍德国的医院建筑。

新建筑实例基于高层次、创造性,主张耐用。建筑形式极为重视生态性并考虑到将来的改扩建的可能性。可持续性也是现在商业建筑的潮流。在这里就意味着尽可能快地建造出廉价并吸引人的建筑,可在日后被拆除,只要资金允许,可以腾出土地,使其可被重新利用。另一方面,对于医院建筑的可持续性也是十分必要的,随着医疗技术和分科的快速发展,基本结构

必须建立在一个多学科的方式上,使建筑能适应用途的改变。另外,医院建筑设计的可持续性也倾向于创造性和艺术性,可持续几十年并可激发新建筑设计的灵感。

在未来城市和医学教育的发展方面,医院的改扩建工程也给其风格与城市发展的融合提供了一个非常好的契机。有了对于医院建筑在功能性和建筑学上理念的更好理解,我们就必须解决一些较为具体的问题,如:功能的结合,材料的使用和建筑技术的使用,以及技术与美学的结合。

对于现有建筑的改造是为了适应使用上的变革或技术的更新,而不能影响到建筑物质量。这种难题会在亚琛大型临床中心等大型医院的改造案例中有所介绍。

未来的医院建筑发展会是怎样的? Friedrich Dürrenmatt曾明确指出:“我们不能预测未来的发展会带来什么,但是我们知道我们必须采取行动。”这句话是对当今医疗机构情况的极好诠释。

我们目前身处“后工业社会”或者如Fritjof Capra所描述的那样是一个“变革的社会”。我们周围的一切都在改变,但是我们一直以来的观念和做法也使我们产生了疑问。

政治的发展促使多种因素的变化。基于财政方面的原因、政府职能的变化、传统行为和现代市场的冲突,在这一方面,国家必须遵循变化的原则。也就是说,在医疗特别是基本医疗服务方面,有关组织必须建立纯粹以提供服务为导向的机制。但作为服务者本身也面临着市场竞争的挑战。

于此同时,普通民众的自信心有所提高和更加成熟,社会责任感也增强了。我们也在我们周围建立了大量的医疗服务建筑。另外,随着医

疗和药品技术的迅猛发展，医疗程序和活动领域都取得了新的含义。这样的实例很多，如：手术技术的改进，放射线诊断和病人住院周期的缩短等。

随着人口的增长和人口结构的变化，给公共医疗领域带来了新的变化和挑战。最明显的例子就是医疗护理的发展如何去适应社会的老龄化。

结果，由于这些发展，一种新型的医院建筑正在发展起来，它打破以往的类型和形式，明确各自的分工：大型综合医院将消失；取代它的将是网络医院，将覆盖整个医疗领域；小专门机构以及当地诊所。一段时间以来，医院的发展面临强大的竞争，为此在保健部门品牌将变得更为重要。

像其他工艺和艺术形式一样，医院建筑也需要变革。在任何有需要的地方这种变革就势在必行，并且必须与原有的建筑相结合。

Christine Nickl-Weller

Hans Nickl

Foreword

Is there an independent style of hospital architecture? Or put another way, how appropriate is contemporary hospital architecture?

"Contemporary architecture is a modest form of architecture" writes author Michel Houellebecq in his book of essays 'The World as a Supermarket'; it reveals its autonomous presence, its character as a piece of architecture in only a discreet blink of the eye – and generally in the tiniest of messages in which it advertises its own process of manufacture (so it is absolutely normal to show the mechanical apparatus of the lift as well as the name of the company that designed it).

Contemporary architecture is a functional form of architecture. The aesthetic issues that are relevant to it have long been replaced by the standard formula of 'what is functional is inevitably beautiful'. This book intends to illustrate forward looking architectural developments through a documentation of selected hospital buildings from the last 10 years which both illustrate the functional importance of such purpose built edifices but furthermore give consideration to the aesthetic criteria of the architecture.

The technology that for a long time led us to believe that a relationship between illness and health was only possible through a shift towards technology and its most extreme scientific horizons must be subjected to a major rethink. This means that technology must again become a means to an end rather than simply being an end in itself. It must be used by respecting the values society has agreed upon. With hospitals, these are the values of dignity and respect.

It is architecture that brings together the most important elements of planning: the connection between the existing and the cityscape, the unity of technology and construction, architecture and the organisation of space. All of this occurs in the context of light. It is the same light which presents one of those values inherent in every illness: hope.

Hospital buildings have belonged to, and continue to belong to the most complex. They are also demanding because in most cases, the period of

time from design conception to realisation stretches over a long period, during which new political, social, technical and medical changes must be incorporated.

In order to gain any understanding of hospital architecture, it is therefore indispensable to be able to understand its history as well as its development in the social context. The modern hospital and its predecessor institutions are able to look back upon a past that is rich in tradition like almost no other social institution, a tradition that is inseparable from the history of western Christianity. The charitable institution that was the product of Christian belief for the elderly, the poor, the abandoned and the sick, which over the course of history has developed many differing forms, remains a recognisable element of our approach to public health care provision today.

The German word 'Kranken-Haus' or the house where a person who is sick (krank) rests and receives treatment, was first defined as a term by the encyclopaedist Johann Krünitz in the year 1789. It was specified as meaning a place for the treatment of curable illness (male and female patients, maternity hospital, foundling hospital, mental hospital) rather than a lazaret (pestilence or quarantine station) or hospital (the poor, the elderly, the crippled).

Already in the 18th century this sort of welfare institution was the focus of public interest, when the parts of hospitals reserved for the treatment of the sick started to become separately constructed buildings. It was at this time that the break finally occurred between the viewpoint (dating from the middle ages) of healthcare in the context of charitable giving, and the modern idea of healthcare and social welfare. This occurred through the increasing demand for care: welfare lost its religious values and became the social responsibility of the state and of government.

In the 1870s, when the decentralised, flat storied trends of construction in hospital buildings starts to catch on in Germany, hospitals become institutions and the specific pavilion system construction design starts to develop. This design system, comprising several isolated structures, allowed for the differentiation of the various hospital functions as well as improvements in hygiene levels through

improved ventilation. The separation of patients according to department and illness also alleviated the risk of infection, which at that time remained a scientifically unrecognised phenomenon. The pavilion hospital was conceived, moreover, as standing separate to its local town, being built on the outskirts of a settlement, or separating itself from its urban surroundings with a park.

Since the beginning of the 20th century to the present day, hospitals have developed into multi-functional, multi-skilled, highly technological facilities that service whole populations. These two phases of hospital development, from places of charitable care for the sick and infirm to high-tech centres of healthcare provision, illustrate a continual process of change, which is currently experiencing a period of accelerated development.

During the 1960s and the beginning of the 1970s, science dominated everything. The prevailing view was that the health care machine could do everything and the patient was merely an object. The consequence was clearly recognisable architectural development. Examples of big volume structures around which health care provision were based are, among others, the mega structures in Hanover, Munich, Aachen and Frankfurt am Main.

In the former GDR this development for the most part manifested itself in the form of mass-patient hospitals, such as the tower block hospitals of the Charité Hospital in Berlin and the University Clinic in Leipzig.

An interesting development from this period was the construction of out-patients clinics as specialist medical centres, which are again today seen as being of growing importance. Today again, similar centres are being developed within the hospitals that are based on the same principles as in former East-Germany: In the cities these are the medical competence centres (MKZ), on the countryside the so-called portal clinics.

It wasn't until the end of the 1980s that a sea change in thinking finally took place – the return of focusing upon the individual patient as the initial concept of a hospital. The annoyance of the general public, brought about through their experience in the mega structure hospitals, resulted in the yearn-

ing for a more confidence-building form of hospital design. It is this development that forms the principal concern of this book.

The term 'hospital architecture' embraces an extensive spectrum of tasks – starting with small hospitals providing basic healthcare, ranging to specialist clinics, to the large, maximum capacity and provision clinical centres and university hospitals. In order to be able to comprehend comparative developments, the book has been structured into sections dealing with new hospital buildings, independent buildings in the context with existing facilities, renovation and extension work, complemented with the chapter concerning specialist clinics. The complexity of the buildings has meant that in some cases, the intended separation and classification may not have been achieved with clarity. We hope, however, to have provided as extensive and regionally structured an overview as possible.

The illustrated examples of the new constructions are based upon a high creative level and stand for durability. A form of architecture that takes its ecological obligations seriously should be designed in such a way as to make future changes possible. The demand for sustainability is on the one hand a current commercial construction trend. Here, it means the erection of a building as quickly, cheaply and with as eye catching a design as possible, which can at a future point be demolished as long as financially and taxably viable, freeing up an empty plot of land that can subsequently be to immediate profitable use all over again. Yet on the other hand, the demand for sustainability in hospital architecture is of necessity, since change in the medical sector takes place at a particularly fast pace; the basic structures must be set up in an interdisciplinary manner so that the buildings can adjust to changes of usage. In addition, hospital structures planned with sustainability in mind bear testament to a conscious creation of structural and artistic values that are set to survive for many decades and to inspire new forms of architecture.

In terms of their representing the further development in the city and/or on the medical campus, extensions and additions provide the chance to understand architectural integration into the sur-

rounding environment. With the clarification of questions of functionality and architectural expression, a contemporary answer must also be found to the presence of the hospital in the city in terms of how far functions, materials and construction can reach beyond their technical uses in a construction project and satisfy aesthetic concerns.

The task of carrying out renovations to existing buildings in order to allow for changes in use, or to effect improvements, should not lead to a situation where the architectural quality of buildings deteriorates due to apparent usability constraints. This difficulty can be observed during the restructuring of the huge Clinical Centre in Aachen, today a listed building.

What does the future development of 'hospital architecture' look like? Friedrich Dürrenmatt once appropriately observed, "we don't know what the future will bring, but we do know that we will have to act". These are words that are wholly transferable to the current status of general health care provision today.

We find ourselves in a 'post-industrial society', or as described by Fritjof Capra, in a 'time of turnaround'. All areas of our lives seem to be touched, but also that the range of beliefs and practices by which we have been up until now led, have also come into question.

The parameters of the change are to be sought in socio-political development. In this respect the most significant change has been the role of the state, which for financial reasons, is withdrawing from its duty of public service provision more and more and abandoning its traditional terrain of activity to the free market. This means that in the field of health provision, and hospital based health care in particular, organisations will have to develop purely from providing care-oriented services into organisations, that as service providers, also meet competitive challenges.

At the same time, the matured and pronounced self-confidence and sense of responsibility of ordinary people has clearly increased. Our dealings with healthcare are as omnipresent as the architecture that surrounds us – our built environment.

In addition, the rapid technical and pharmacological development of medicine is changing so much that procedures and fields of activity are gaining new meanings at the same time as once familiar practices cease to exist. A few examples from many are the development of keyhole surgery, radiological diagnosis and the reduced duration of patient hospital stays.

Through demographic development and population change, other clinical pictures are gaining in significance, bringing with them new challenges and problems within the field of public health care provision. This can be especially be noticed in the differentiation of the sectors nursing and therapy that have to adjust to an aging society.

Due to these developments and findings, a new form of hospital architecture is set to develop that breaks with past typology and forms its own individual and unmistakable picture: the general hospital will disappear; it will be replaced by networks that will cover the entire health care sector: small locally based institutions as well as specialised clinics. For quite some time now the development of hospitals becoming powerful enterprises facing the competition on the capitalist markets can be observed. For this reason brands in the health care sector will gain importance in the future.

Like every other craft and every other art form, hospital architecture requires innovation. Such innovation must be applied wherever it is required and must also build further upon that which already exists.

Christine Nickl-Weller

Hans Nickl

新医院 Krankenhausneubauten

