

建筑英语 人文素质读本

主 编 袁荣儿 丁 虹



An English Reader in Architectural Culture



ZHEJIANG UNIVERSITY PRESS

浙江大学出版社

建筑英语 人文素质读本

An English Reader in Architectural Culture

主 编 袁荣儿 丁 虹

副主编 陈劲节 何飞云

孙启勤 汪小芹

张 红



ZHEJIANG UNIVERSITY PRESS

浙江大学出版社

内容提要

本书主要以英语为载体,内容涉及建筑历史、绿色建筑、建筑设计、建筑施工、建筑经济与管理、世界名建筑。

本书可作为高职高专建筑类学院英语课程的专用教材,也可作为各级各类学校的选修课教材和学生课外阅读材料,同时也适合对建筑英语感兴趣的社会各界。

图书在版编目(CIP)数据

建筑英语人文素质读本 / 袁荣儿, 丁虹主编. — 杭州: 浙江大学出版社, 2012.2 (2012.8 重印)

ISBN 978-7-308-09596-9

I. ①建… II. ①袁…②丁… III. ① 建筑—英语 IV. ① H31

中国版本图书馆 CIP 数据核字 (2012) 第 016275 号

建筑英语人文素质读本

袁荣儿 丁虹 主编

责任编辑 邹小宁

文字编辑 芮凌云

封面设计 朱琳

出版发行 浙江大学出版社

(杭州市天目山路 148 号 邮政编码 310007)

(网址: <http://www.zjupress.com>)

排版 杭州教联文化发展有限公司

印刷 浙江国广彩印有限公司

开本 787mm×1092mm 1/16

印张 7.5

字数 200 千

版印次 2012 年 2 月第 1 版 2012 年 8 月第 2 次印刷

书号 ISBN 978-7-308-09596-9

定价 27.00 元

版权所有 翻印必究 印装差错 负责调换

前言

高等职业教育不同于一般的学历教育,其培养目标必须突出实用性和针对性。为此,本教材编写组对高职建筑类的在校生、毕业生和用人单位进行了调查,在了解学生需求和社会需求的基础上确定英语课程的教学目标。就英语这门学科而言,建筑类高职院校英语教学的主要目的是培养学生掌握必需的实用英语知识和语言技能,在确保具有基本的听说能力的基础上,提高阅读和翻译将来与工作相关的英文资料的能力,并为进一步提高英语应用能力打下一定的基础。

在“能力为本、素质为重”的思想指导下,编写组编写了以建筑行业为主要职业的典型工作过程来组织教材内容的《建筑行业英语》和《建筑英语人文素质读本》,这两本教材可以较好地解决英语教学必须做到的学以致用问题。

《建筑英语人文素质读本》编写的重点不是放在深奥的专业知识上,而是侧重于提高本书使用者的建筑行业综合人文素质(如建筑人文知识、思想、方法、精神等)和英语水平,为此,适应的读者对象比较广,适合高职高专的学生以及对建筑英语感兴趣的社会各界人士学习使用。

本书以“读本”的方式出现,体现以下特色:

1. 通俗:深入浅出,通俗易懂,适合高职学生的理解特点。
2. 革新:拒绝应试教学,摒弃繁琐的语法讲解。
3. 实用:强调学生阅读的准确性和阅读速度,兼顾学生的英语表达能力。
4. 前瞻:让学生回顾建筑历史的同时,了解建筑领域的最新发展动态。

本书每个章节的A、B两篇阅读材料均有参考译文,并在书后附有建筑专业词汇,以方便读者使用。

本书由袁荣儿、丁虹主编,张红、何飞云、袁荣儿、丁虹、陈劲节和汪小芹分别编写了建筑历史、建筑新理念、建筑设计、建筑施工、建筑经济与管理、世界名建筑等六个章节。

本书要特别感谢孙启勤、喻旭燕、David Ho、项玲、胡志海、李蓉等人的细心校对和中肯意见。

浙江大学陈刚教授对本书提出了宝贵意见,在此表示感谢。

由于编者水平有限,疏漏和不妥之处在所难免,恳请读者不吝指正。

编者

2011年9月

Contents

Chapter 1: History of Architecture

Text A Architecture	1
Text B History of Architecture	4
Text C 中国古代建筑史简介	8

Chapter 2: Green Architecture

Text A Harmony in Buildings	14
Text B What LEED Measures	17
Text C 低碳建筑新理念:最绿的摩天大楼	21

Chapter 3: Architecture Design

Text A Stages of a Design Project	26
Text B Five Building Designers Who Are Redefining Modern Architecture	29
Text C 建筑风格简介	33

Chapter 4: Construction

Text A Stages in a Building Project	39
Text B Types of Construction Workers	43
Text C 建筑施工现场安全管理“十戒”	46

Chapter 5: Economy and Management of Architecture

Text A A Review of the Development Process of Real Estate	53
Text B What Is Project Management	56
Text C 中国的住房价格上涨	60

Chapter 6: World Famous Architectures

Text A Eiffel Tower	67
Text B The Taj Mahal	70
Text C 世界名建筑掠影	74

Text Translation	80
------------------------	----

Glossary	91
----------------	----

Architecture Vocabulary	107
-------------------------------	-----

References	114
------------------	-----

Chapter 1 History of Architecture

Part I Knowledge

Text A Architecture

Architecture is both the process and product of planning, designing and construction. *Architectural* works, in the material form of buildings, are often *perceived* as cultural and political symbols and as works of art. Historical civilizations are often identified with their surviving architectural achievements.

"Architecture" can mean:

- The art and science of designing and *erecting* buildings and other physical structures.
- A general term to describe buildings and other structures.
- A style and method of design and construction of buildings and other physical structures.
- The practice of an *architect*, where architecture means to offer or *render professional* services in connection with the design and construction of a building, or group of buildings and the space within the site surrounding the buildings, which have as their *principal* purpose human *occupancy* or use.
- Design activity, from the macro-level (*urban* design, *landscape* architecture) to the micro-level (construction details and furniture).
- The term "architecture" has been *adopted* to describe the activity of designing any kind of system, and is commonly used in describing information technology.



In relation to buildings, architecture has to do with the planning, designing and constructing form, space and *ambience* that reflect functional, technical,

An English Reader in Architectural Culture

social, environmental, and *aesthetic* considerations. It requires the creative *manipulation* and *coordination* of material, technology, light and shadow. Architecture also *encompasses* the *pragmatic* aspects of realizing buildings and structures, including scheduling, cost estimating and construction *administration*. As *documentation* produced by architects, typically drawings, plans and technical *specifications*, architecture defines the structure and/or behavior of a building or any other kind of system that is to be or has been constructed.

Building first *evolved* out of the *dynamics* between needs (shelter, security, *worship*, etc.) and means (available building materials and *attendant* skills). As human cultures developed and knowledge began to be *formalized* through oral traditions and practices, building became a *craft*, and "architecture" is the name given to the most highly formalized *versions* of that craft.

Words and Phrases

architecture ['ɑ:kitektʃə] n.	建筑, 建筑学
architectural [ˌɑ:kitektʃərəl] adj.	建筑学的, 建筑上的, 有关建筑的
architect ['ɑ:kitekt] n.	建筑师, 设计师
perceive [pə'si:v] v.	察觉, 认为, 理解为
identify [aɪ'dentɪfaɪ] v.	识别, 确定, 使等同于
erect [ɪ'rekt] v.	使直立, 竖起, 建立
render ['rendə] v.	报答, 给予, 提供
professional [prə'feʃənəl] adj.	职业的, 专业的, 有经验的
principal ['prɪnsəpəl] adj.	最重要的, 主要的
occupancy ['ɒkjʊpənsɪ] n.	(房屋、土地等的) 占有, 居住, 占有期
urban ['ɜ:bən] adj.	城市的, 市区的
landscape ['lændskeɪp] n.	风景, 景色, 景观
adopt [ə'dɒpt] v.	收养, 采用, 选定
ambience ['æmbi:əns] n.	环境, 气氛
aesthetic [i:s'tetɪk] adj.	美学的, 审美的, 雅致的
manipulation [mə'nɪpjʊ'leɪʃən] n.	操作, 操纵, 控制

coordination [kəʊˌɔːdn'eɪʃən] n.	协调, 和谐
encompass [ɪn'kʌmpəs] v.	围绕, 包含, 涉及(大量事物)
pragmatic [præg'mætɪk] adj.	实事求是的, 注重实效的, 实用主义的
administration [ədˌmɪnɪs'treɪʃən] n.	实行, 管理, 经营
documentation [ˌdɒkjumən'teɪʃən] n.	证明某事属实的证据, 记录, 程序说明书
specification [ˌspesɪfɪ'keɪʃən] n.	规范, 说明书, 详述
evolve [ɪ'vɒlv] v.	演变, 进化
dynamics [daɪ'næmɪks] n.	动力学, (音乐中的)力度变化, 动态
worship ['wɜːʃɪp] n.	崇拜, 尊崇, 敬拜
attendant [ə'tendənt] adj.	伴随的, 随之而产生的
formalize ['fɔːməlaɪz] v.	使正式, 使定型, 形式化
craft [kraːft] n.	工艺, 技巧, 技能
version ['vɜːʃən] n.	版本, 形式, 说法
in connection with	与……有关, 连同
macro-level	宏观层面
micro-level	微观层面
in relation to	有关, 涉及, 关于
do with	处理, 对待, 与……有关

Answer the following questions.



1. What do people often regard architectural works as?
2. What does architecture mean to provide in the practice of an architect?
3. Why does it require the creative manipulation and coordination of material, technology, light and shadow in relation to buildings?
4. What pragmatic aspects of realizing buildings and structures does architecture include?
5. How many definitions are mentioned in the text? Try to translate two or three.

An English Reader in Architectural Culture

Text B History of Architecture

Geographically and *chronologically*, architecture appears to have *originated* in the Nile valley. Through various channels the Greeks *inherited* from both Egyptian and *Assyrian* art, the two influences being *discernible* even through



the strongly original aspect of Greek architecture. The Romans in turn, adopting the *external* details of Greek architecture, *transformed* its *substance* by *substituting* the *Etruscan arch* for the Greek construction of *columns* and *lintels*. They developed a complete and original system of construction

and decoration and spread it over the civilized world, which has never wholly outgrown or *abandoned* it.

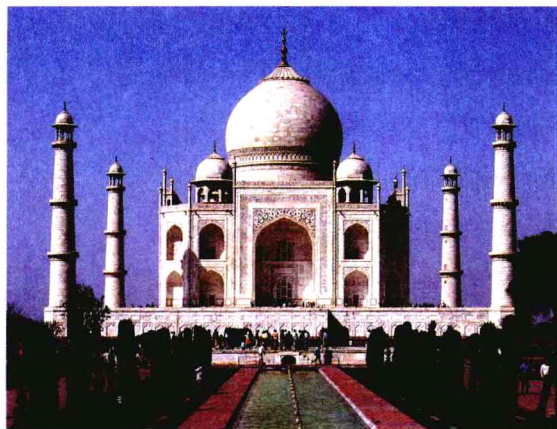
With the fall of Rome and the rise of *Constantinople* these forms *underwent* in the East another *transformation*, called the *Byzantine*. In the North and West, meanwhile, under the growing institutions of the *papacy* and of the *monastic* orders and the *emergence* of a *feudal* civilization out of the *chaos* of the Dark Ages, the constant *preoccupation* of architecture was to evolve from the *basilica* type of church to a *vaulted* structure, and to *adorn* it throughout with an appropriate dress of constructive and symbolic *ornament*. *Gothic* architecture was the *outcome* of this preoccupation, and it prevailed throughout northern and western Europe until nearly or quite the close of the fifteenth century.

During this fifteenth century the *Renaissance* style *matured* in Italy, where it speedily *triumphed* over Gothic fashions and produced a marvellous series of *civic* monuments, palaces, and churches, adorned with forms borrowed or imitated from classic Roman art. This influence spread through Europe in the sixteenth century, and ran a course of two centuries, after which a period of *servile* classicism was followed by a rapid decline in taste.



Chapter 1: History of Architecture

In Eastern lands three great schools of architecture have grown up *contemporaneously* with the above



phases of Western art; one under the influence of *Mohammedan* civilization, another in the *Buddhist* architecture of India, and the third in China and Japan. The first of these is the richest and most important. Primarily inspired from Byzantine art, always stronger on the decorative than on the constructive side, it has given to the world the *mosques* and palaces of Northern Africa, Persia,

Turkey, and India. The other two schools seem to be wholly unrelated to the first, and have no *affinity* with the architecture of Western lands.

Words and Phrases

geographically [dʒɪə'græfɪkəli] adv.	地理学上,在地理上,地理方面
chronologically [ˌkrɒnə'lɒdʒɪkəli] adv.	从历史上,按年代地
originate [ə'ɹɪdʒɪneɪt] v.	起源于,来自,产生,创造
inherit [ɪn'herɪt] v.	继承,继任
Assyrian [ə'sɪrɪən] adj. & n.	亚述的,亚述人
discernible [dɪ'sɜːnəbl] adj.	可识别的
external [eks'tɜːnl] adj.	外面的,外观的,表面的
transform [træns'fɔːm] v.	改变,使改变外观(或性质),使改观
substance ['sʌbstəns] n.	物质,物品,实质
substitute ['sʌbstɪtjuːt] v.	代替,替换,代用
Etruscan [ɪ'trʌskən] n.& adj	伊特鲁里亚人,伊特鲁里亚的
arch [ɑːtʃ] n.	拱门,拱形物,足弓
column ['kɒləm] n.	柱,圆柱
lintel ['lɪntl] n.	楣,过梁
outgrow [aʊt'grəʊ] v.	长[发展]得超过(某物)的范围
abandon [ə'bændən] v.	丢弃,遗弃,放弃
Constantinople [ˌkɒnstəntɪ'nəʊpl] n.	君士坦丁堡

An English Reader in Architectural Culture

undergo [ˌʌndə'gəʊ] v.	经历,承受
transformation [ˌtrænsfə'meɪʃən] n.	变化,变质,转变
Byzantine [brɪ'zæntaɪn] adj.	拜占庭的,拜占庭建筑风格的
papacy ['peɪpəsi] n.	罗马教皇职位,教皇的在位期间
monastic [mə'næstɪk] adj.	庙宇的,修道院的
emergence [ɪ'mɜːdʒəns] n.	出现,暴露,浮现
feudal ['fjuːdl] adj.	封建制度的
chaos ['keɪs] n.	混乱,紊乱
preoccupation [priːˌɒkjə'peɪʃən] n.	全神贯注,入神,当务之急
basilica [bə'zɪlɪkə] n.	长方形廊柱大厅式教堂,长方形廊柱大厅
vaulted [vɔːltɪd] adj.	拱状的,圆顶的
adorn [ə'dɔːn] v.	装饰,装扮,佩带
ornament ['ɔːnəmənt] n.	装饰,点缀物,首饰
Gothic ['gɒθɪk] adj.	哥特式的
outcome ['aʊtkʌm] n.	结果,成果
Renaissance [rɪ'neɪsəns] n.	文艺复兴,文艺复兴时期
mature [mə'tʃʊə] v.	成熟,有判断力,充分发展
triumph ['traɪəmf] v.	获胜,打败,战胜
civic ['sɪvɪk] adj.	市政的,城市的,市民的
servile ['sɜːvəl] adj.	过分屈从的,缺乏独立性的,奴隶的
contemporaneous[kənˌtempə'reɪnjəs] adj.	同时期的,同时代的
Mohammedan [məʊ'hæmɪdən] adj.	穆罕默德的,伊斯兰教的,回教的
Buddhist ['bʊdɪst] adj. & n.	佛教的,佛教徒
mosque [mɒsk] n.	清真寺,伊斯兰教寺院
Persia ['pɜːʃə] n.	波斯
affinity [ə'fɪnɪti] n.	密切关系,连接关系,相像
in turn	依次,轮流地,转而
spread out	分散,传开,遍布

Chapter 1: History of Architecture

Translate the following expressions.



the Nile valley

various channels

the rise of Constantinople

external details

complete and original system

the civilized world

vaulted structure

symbolic ornament

Gothic architecture

civic monument

rapid decline

under the influence of

have no affinity with



Vatagage in Polonnaruwa, Sri Lanka. The tooth relic of Buddha was once kept here. The stone carvings are of the highest quality in Polonnaruwa.

Construction Award: Gold Nugget Award (金块奖)



The Gold Nugget Awards are a centerpiece of PCBC — the Building Industry's leading conference, trade show and meeting place.

The Gold Nugget Awards were born in 1963 at American Builder, for many years a national magazine of the building industry. They were conceived expressly for PCBC, to recognize builder/developer excellence throughout the United States and Internationally.

An English Reader in Architectural Culture

Text C 中国古代建筑史简介

中国的古建筑可谓是 countless 数之不尽,中国古建筑多集中于 temple 坛庙建筑、palace 宫殿建筑、garden 园林建筑和 residence 住宅建筑,而这些建筑艺术均在北京城发展到了巅峰。北京的 the Forbidden City 紫禁城由明代开始 plan 规划和建造,王宫 cover 占地 72 万平方米,房屋大小共近千幢,面积达 16 万平方米,1407 年开始建造,1420 年全部完工,只用了 13 年的时间,而这 13 年中大部分时间花在备材和各种准备工作,真正 site construction 现场施工只用了五年不到的时间,尔后经过清王朝几百年的 remedy 修缮和 expand 扩建,最终成为世界上保留最完整的一座宫殿。

唐代是中国建筑的发展高峰。唐代建筑的风格特点是气魄宏伟,严整开朗。唐代中原地区的建筑规模宏大,规划严整,中国建筑群的整体规划在这一时期日趋成熟。唐都长安和东都洛阳都修建了规模巨大的宫殿、hunting ground 苑囿、government offices 官署,且建筑布局也更加规范合理。长安是当时世界上最宏大的城市,其规划也是中国古代都城中最为严整的,Chang-an City 长安城内的帝王宫殿 Daming Palace 大明宫极为雄伟,其 site 遗址范围即相当于明清故宫紫禁城总面积的 3 倍多。唐代的木建筑 unify 实现了艺术加工与结构造型的统一,包括 bracket set 斗拱、pillar 柱子、roof beam 房梁等在内的建筑构件均体现了力与美的完美结合,但留存至今的唐代木结构建筑只有四座,全部在山西省境内。



宋朝是中国古建筑体系的大转变时期。宋朝建筑的规模一般比唐朝小,但比唐朝建筑更为秀丽、绚烂而富于变化,出现了各种复杂形式的殿阁楼台。建筑装饰绚丽而多彩。流行 wood imitation structure 仿木构建筑形式的 masonry towers 砖石塔和 tombs 墓葬,创造了很多华丽精美的作品。建筑构件的 standardization 标准化在唐代的基础上不断发展,各工种的操作方法和工料的

estimate 估算都有了较严格的规定。现存宋代的建筑有山西太原晋祠圣母殿、福建泉州清净寺、河北正定隆兴寺和浙江宁波保国寺等。其建筑特征是,屋顶的 slope 坡度增大, corbel 出檐不如前代深远,重要建筑门窗多采用菱花 spier 隔扇,建筑风格渐趋柔和。

元朝是中国古建筑体系的又一发展时期。The Great Capital of the Yuan Dynasty 元大都按照汉族传统都城的 layout 布局建造,是自唐长安城以来又一个规模巨大、规划完整的都城。元代城市进一步发展了各行各业的 workshop 作坊、店铺和 stage 戏台、酒楼等 recreational 娱乐性建筑。从 Tibet 西藏到大都建造了很多 Buddhism 佛教寺院和 pagodas 塔,大都、新疆、云南及东南地区的一些城市陆续兴建 Islamism 伊斯兰教礼拜寺。藏传佛教和伊斯兰教的建筑艺术逐步影响到全国各地。Central Asia 中亚各族的 craftsmen 工匠也为工艺美术带来了许多外来因素,使汉族工匠在宋、金传统上创造的宫殿、寺、塔和 statue 雕塑等表现出若干新的趋势。



明清时期是中国古建筑体系的最后一个高峰期。明朝由于 brickmaking 制砖手工业的发展,砖的生产大量增长,明代大部分城墙和一部分规模巨大的长城都用砖 masonry 包砌,地方建筑也大量使用砖瓦。glazed tile 琉璃瓦的生产,无论数量或质量都 exceed 超过过去任何朝代。

Official buildings 官式建筑已经高度 standardized 标准化、finalized 定型化。清朝于1723年 issue 颁布了《工部工程做法则例》,统一了官式建筑的模数和用料标准, simplify 简化了构造方法。Folk buildings 民间建筑的类型与数量增多,质量也有所提高。各民族的建筑也有了发展,地方特色更加显著。Royal 皇家和 private 私人的园林在传统基础上有了很大的发展,在明末出现了一部总结造园经验的著作——《园冶》,并留下了许多优秀作品。



An English Reader in Architectural Culture

Key Words

Tang Dynasty

palace 宫殿

hunting ground 苑囿

government office 官署

Chang-an City 长安城

Daming Palace 大明宫

bracket set 斗拱

pillar 柱子

roof beam 房梁

Song Dynasty

wood imitation structure 仿木构建筑

masonry tower 砖石塔

tomb 墓葬

slope of roof 屋顶坡度

corbel 出檐

spier 隔扇

Yuan Dynasty

the Great Capital of the Yuan Dynasty 元大都

layout 布局

workshop 作坊

Tibet 西藏

temple 寺庙

pagoda 佛塔

Islamism 伊斯兰教

Ming & Qing Dynasty

glazed tile 琉璃瓦

official building 官式建筑

folk building 民间建筑

Useful Words and Phrases

remedy ['remɪdi] v.

site [saɪt] n.

unify ['juːnɪfaɪ] v.

imitation [,ɪmɪ'teɪʃən] n.

masonry ['meɪsənri] n. & v.

standardize ['stændə,daɪz] v.

修缮,纠正,改进

位置,场所,遗址

使联合,统一

模仿,仿效,仿制品

石工工程,砖瓦工工程,砌墙

使合乎规格,使标准化标准

Chapter 1: History of Architecture

standardization [ˌstændədɑɪˈzeɪʃən] n.	标准化
estimate [ˈestɪmənt] v.	估计,评价,评估
recreational [ˌrekriˈeɪʃənəl] adj.	休养的,娱乐的
craftsman [ˈkræftsmən] n.	工匠,手艺人,技术
statue [ˈstætjuː] n.	雕像,塑像
exceed [ɪkˈsiːd] v.	超过,超越,(在数量、质量上)突出
finalize [ˈfɑːnəˌlaɪz] v.	定下来,定稿,使定型化
issue [ˈɪʃuː] v.	出版,发行,颁布
simplify [ˈsɪmplɪfaɪ] v.	使(某事物)简单,使简化,使简易
site construction	现场施工

Fill in the blanks with the following words given in Chinese.



建筑的: _____ works	当务之急的事情: constant _____
象征: cultural and political _____	装饰物: symbolic _____
文明: historical _____	打败: _____ over Gothic fashion
提供: _____ professional service	代替: _____ for the Greek style
居住: human _____	密切关系: have no _____ with
景观: _____ architecture	修缮: _____ the Forbidden City
审美的: _____ consideration	统一: _____ art and structure
管理: construction _____	模仿: wood _____ structure
协调: _____ of light and shadow	砖石: _____ tower
随之而来的: _____ skills	标准化: _____ of structural elements
起源于: _____ in the Nile valley	娱乐性: _____ building
继承: _____ from Egyptian art	塔: Buddhism _____
实质: transform the _____	民间: _____ buildings
没落: _____ of Rome	颁布: _____ the law
封建的: a _____ civilization	皇家: _____ garden

An English Reader in Architectural Culture

Part II Views

What Is Architecture?

Lebbeus Woods

I think architecture is about ideas in the first place. You don't get to design until you have an idea. That idea has to be somewhat comprehensive. There's always a client asking for a building.

Eva Harlou

Architecture is handcraft. Architecture is art. Most of all architecture is framing human life. With architecture comes a great responsibility of trying to understand the human nature.

I'm convinced that architecture has to be functional, durable and beautiful. Furthermore it's very important to me that my architecture reveals a clear and understandable concept—tells a simple story. I don't believe that “less is more”, but I enjoy when simple and beautiful geometrical shapes solve all challenges in a project. Architecture doesn't have to be difficult and I don't think that innovative architecture has to look like something exploded.

Thom Mayne

What is architecture really? It is taking our world view, how we exist, how we deal with each other in a civil society, and it concertizes it, it makes it permanent, it makes it evident. The social act and the aesthetic act comes together.

Architecture is a public act: It can only finally be about our social space: connections between people, a public space, the connective tissue.

Peter Zumtor

Architecture is a sensuous art, because it is perceived with the senses. If you like a house or an inner space, perhaps a living room or a church, it is something you feel, not something you think. Of course, the mind comes into play too, as it is through experience that we understand how buildings work, and so there is a certain empiricism at work. But the most important thing is emotional understanding. This cannot always be rationalized or summoned at will. It is often just there.