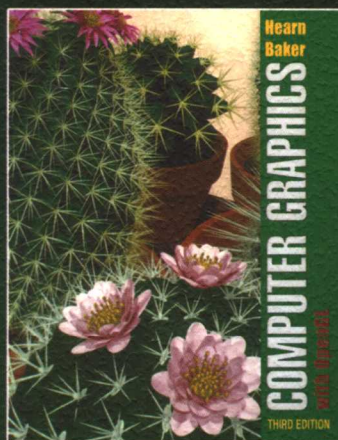


计算机图形学

(第三版)

Computer Graphics with OpenGL

Third Edition



[美] Donald Hearn 著
M. Pauline Baker

蔡士杰 宋继强 蔡敏 译
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电子工业出版社

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国外计算机科学教材系列

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内 容 简 介

本书是一本内容丰富、取材新颖的计算机图形学著作,并在其前一版的基础上进行了全面扩充,增加了许多新的内容,覆盖了近年来计算机图形学的最新发展与成就。全书层次分明、重点突出,并附有使用 OpenGL 编写的大量程序以及各种效果图,是一本难得的优秀教材。

本书共分为 15 章,全面系统地讲解了计算机图形学的基本概念和相关技术。作者首先对计算机图形学进行综述;然后讲解二维图形的对象表示、算法和应用,以及三维图形的相关技术、建模和变换;接着介绍光照模型、颜色模型和动画技术。本书还新增了有关层次建模和图形文件格式的介绍,最后的附录给出了计算机图形学中用到的基本数学概念。

本书可作为信息技术等相关专业本科生和研究生的教材或参考书,也可作为计算机图形技术人员的参考资料。

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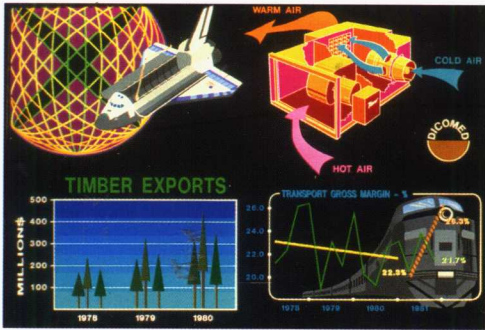


FIGURE 1-1

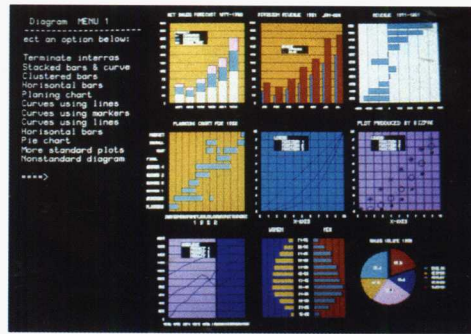
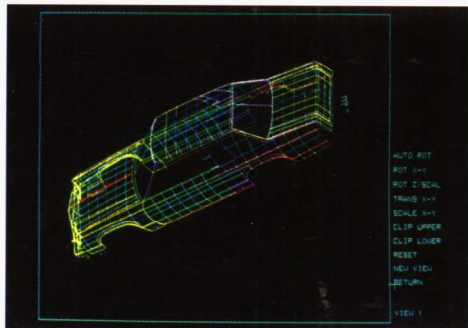


FIGURE 1-2

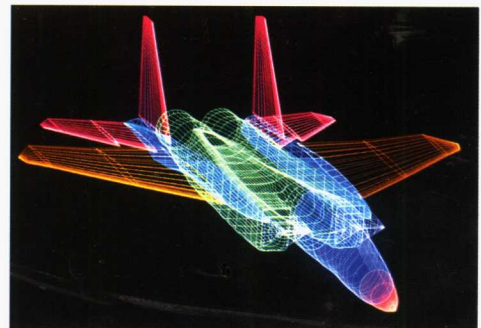


FIGURE 1-4

FIGURE 1-8

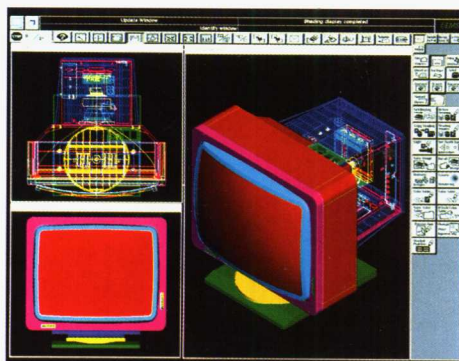


(a)

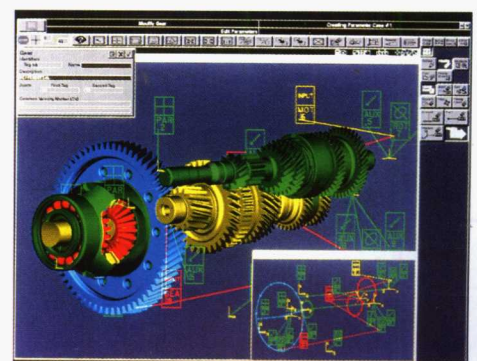


(b)

FIGURE 1-9



(a)



(b)

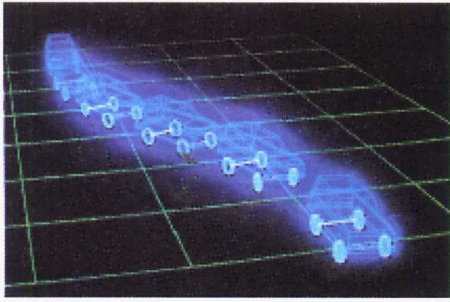


FIGURE 1-11



FIGURE 1-13

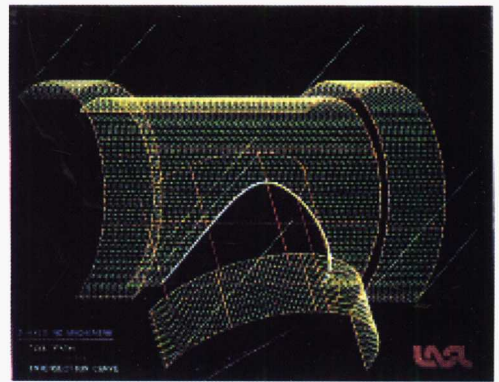


FIGURE 1-14

FIGURE 1-16



(a)



(b)

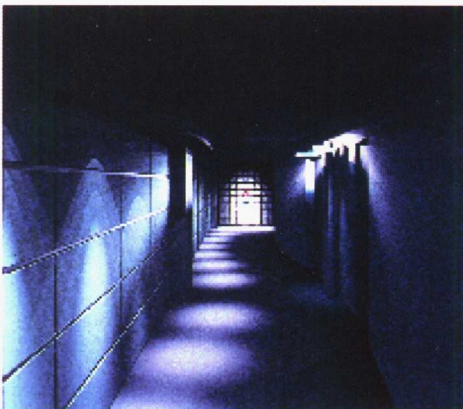


FIGURE 1-17



FIGURE 1-18

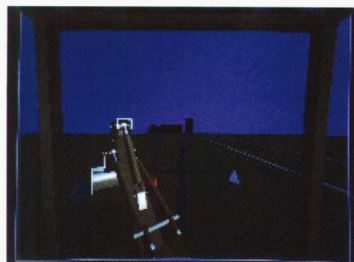


FIGURE 1-20



FIGURE 1-21



FIGURE 1-22

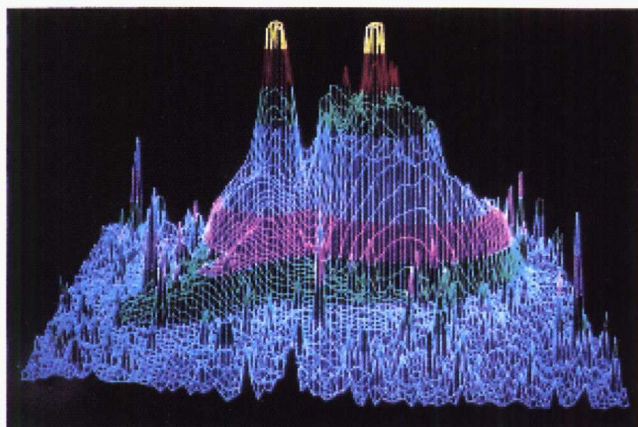


FIGURE 1-23



FIGURE 1-24



FIGURE 1-27

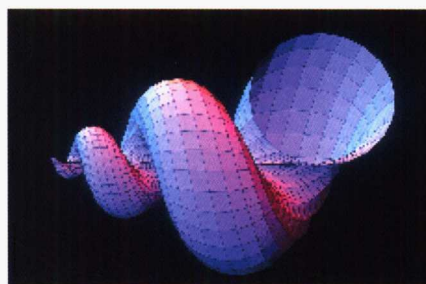


FIGURE 1-25

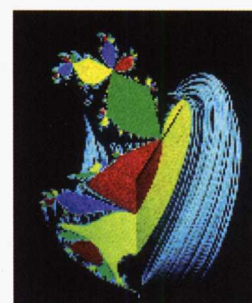


FIGURE 1-26

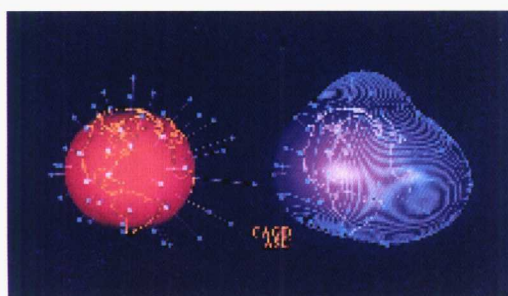


FIGURE 1-28

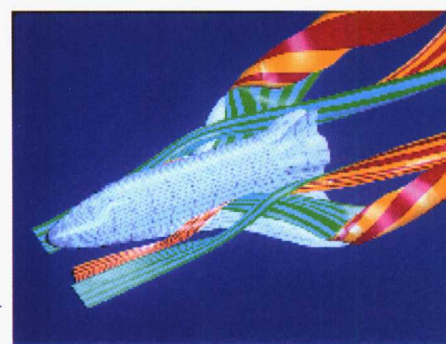


FIGURE 1-29

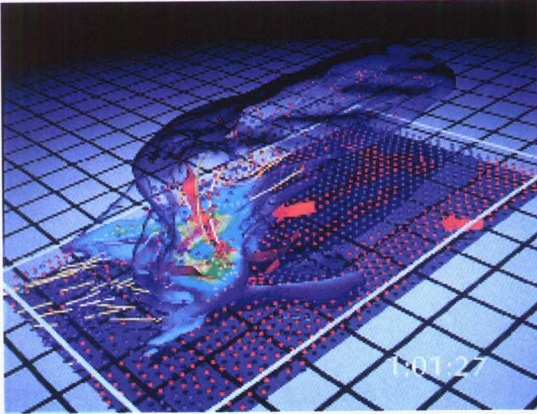


FIGURE 1-30

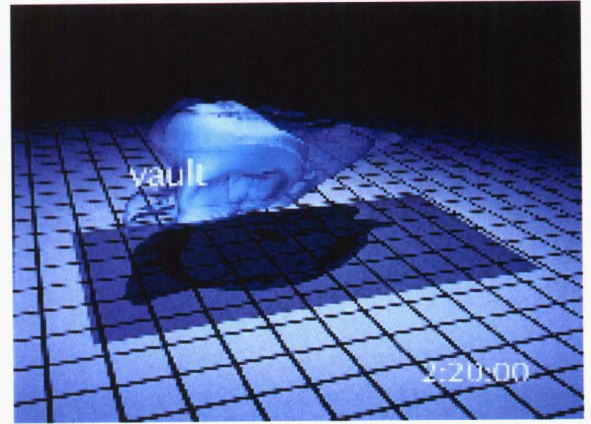


FIGURE 1-31



FIGURE 1-33

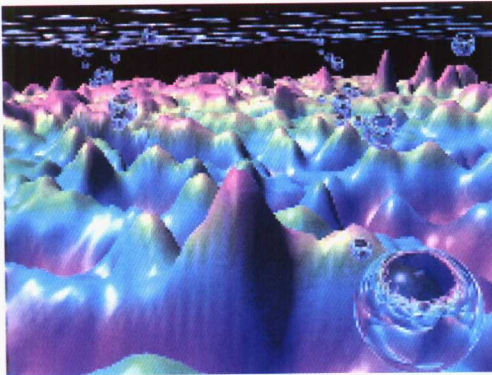


FIGURE 1-37

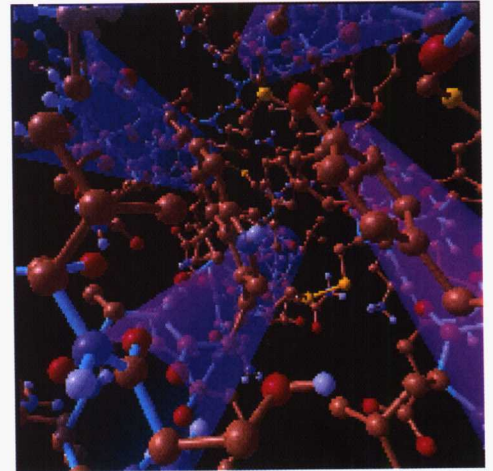


FIGURE 1-35



FIGURE 1-38



FIGURE 1-36

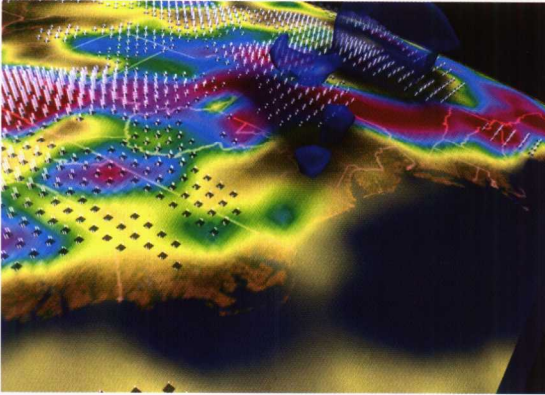


FIGURE 1-39



FIGURE 1-40

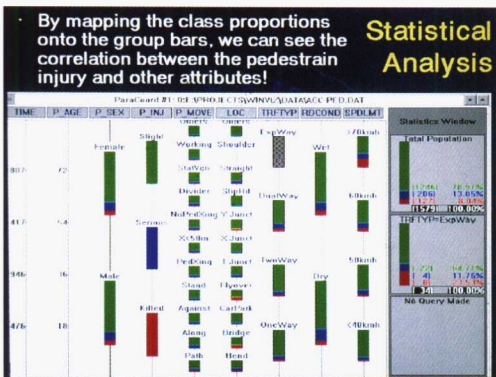


FIGURE 1-42

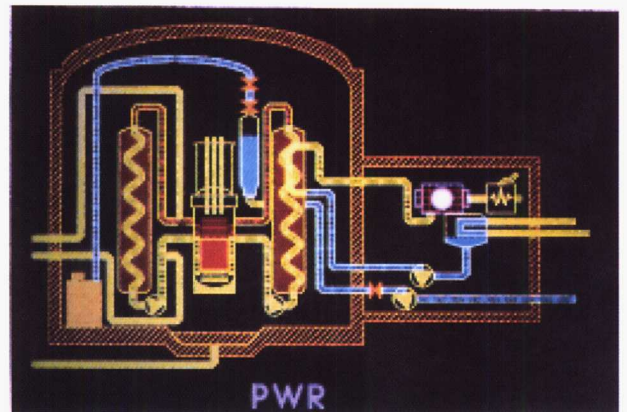


FIGURE 1-43



FIGURE 1-44

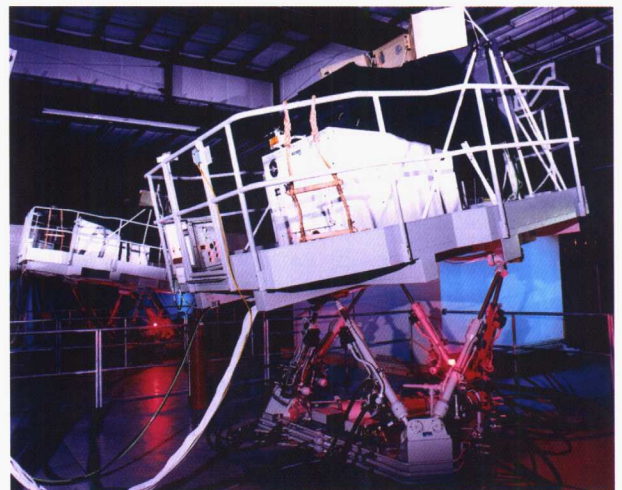


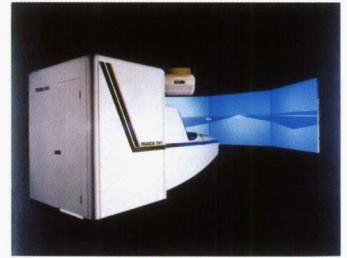
FIGURE 1-45



(a)



(b)



(c)

FIGURE 1-46



(a)



(b)

FIGURE 1-51



(a)



(b)

FIGURE 1-53



FIGURE 1-55



FIGURE 1-56



FIGURE 1-57



FIGURE 1-65



(a)



(b)



(c)

FIGURE 1-63



(a)



(b)

FIGURE 1-67



FIGURE 1-68

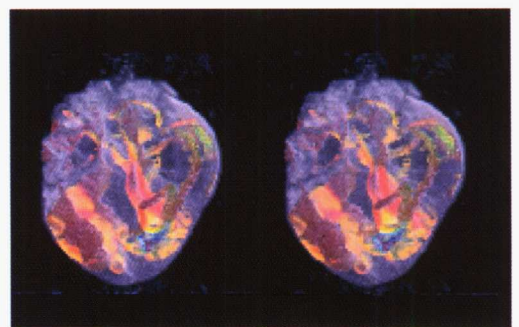


FIGURE 1-71



FIGURE 2-1

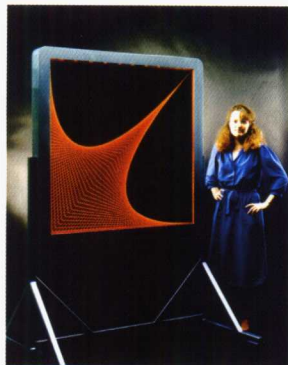


FIGURE 2-12

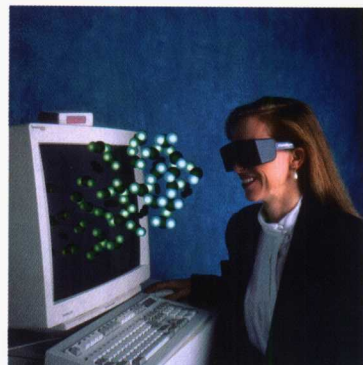
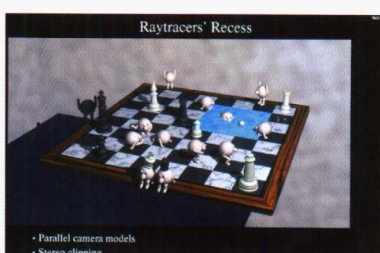


FIGURE 2-18



(a)



(b)

FIGURE 2-19



FIGURE 2-22



FIGURE 2-33



FIGURE 2-34

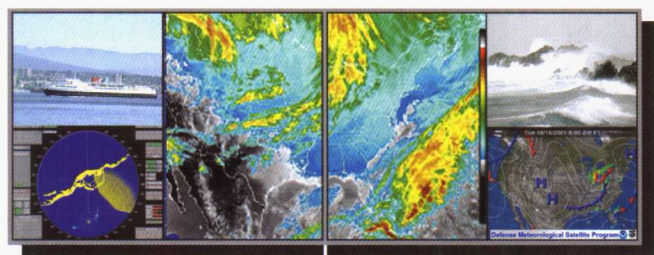


FIGURE 2-35



FIGURE 2-36



FIGURE 2-37

FIGURE 2-48



FIGURE 2-38

FIGURE 2-49



FIGURE 2-52



FIGURE 2-39



(a)



(b)

FIGURE 2-53

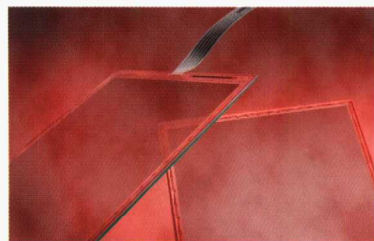


FIGURE 2-54

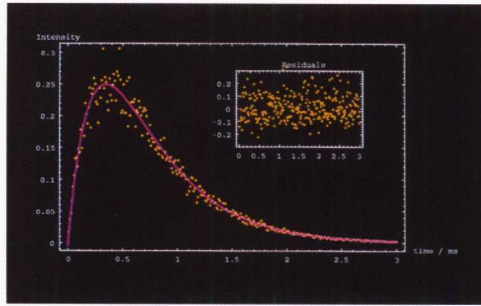


FIGURE 3-65

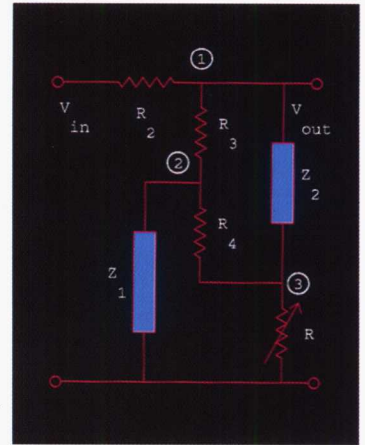


FIGURE 3-66



FIGURE 4-15



FIGURE 4-30

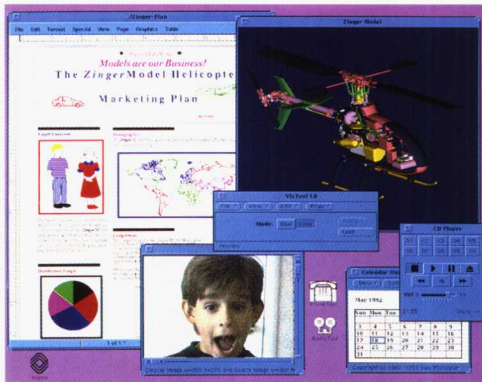


FIGURE 6-1

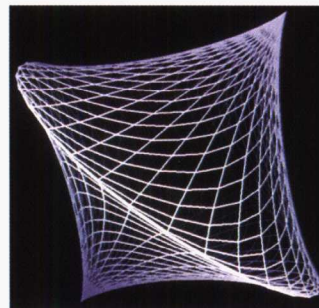


FIGURE 7-6

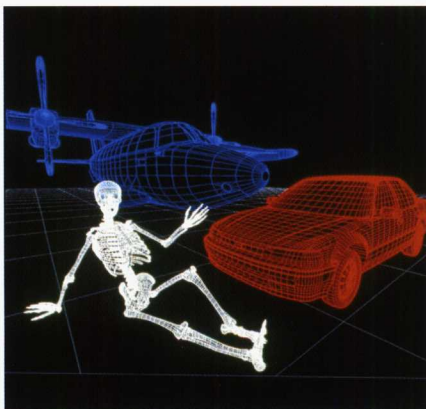


FIGURE 7-2



FIGURE 7-4



FIGURE 7-7

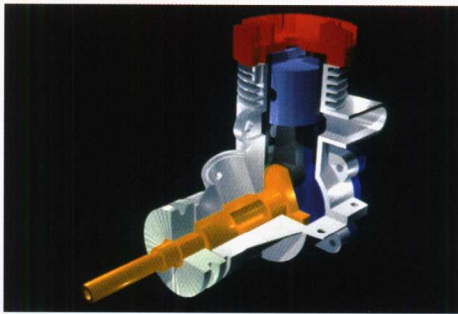


FIGURE 7-9

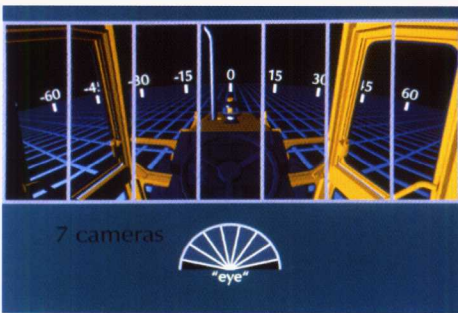
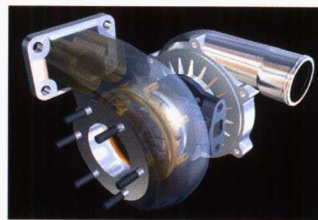
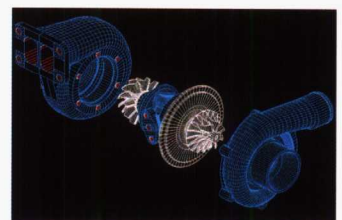


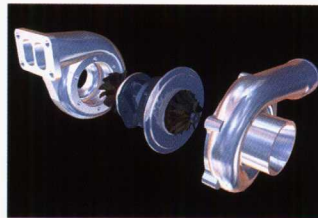
FIGURE 7-18



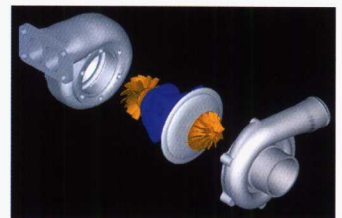
(a)



(b)



(c)



(d)

FIGURE 7-8

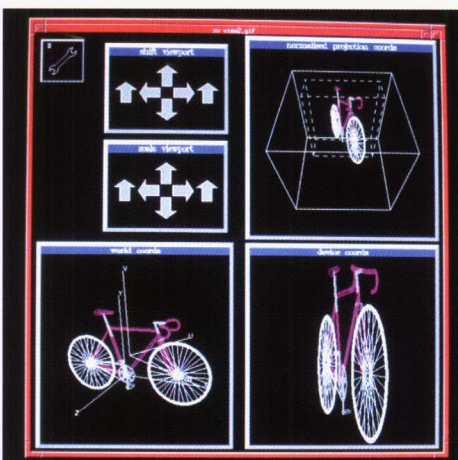


FIGURE 7-21

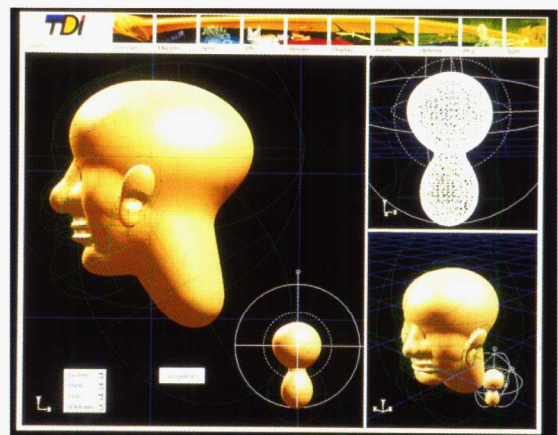


FIGURE 8-13

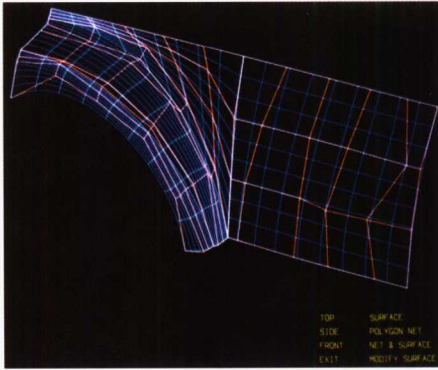


FIGURE 8-16

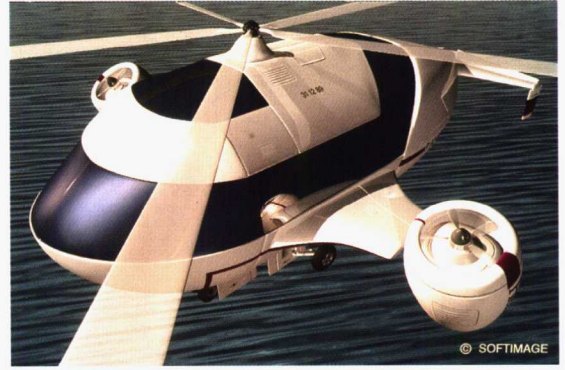
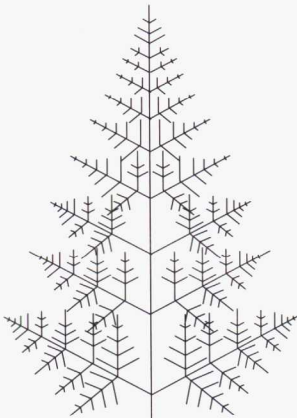
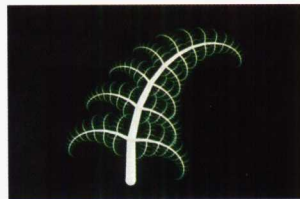


FIGURE 8-46



(a)



(b)

FIGURE 8-76

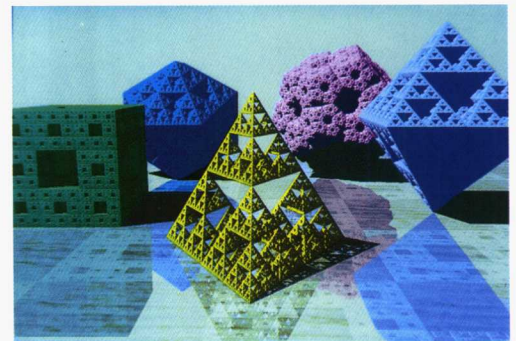


FIGURE 8-78

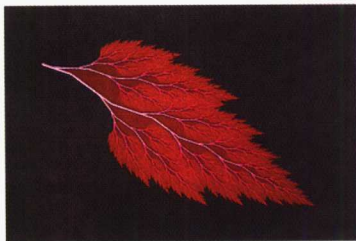


FIGURE 8-80



FIGURE 8-81



FIGURE 8-82



FIGURE 8-83

FIGURE 8-84



FIGURE 8-86

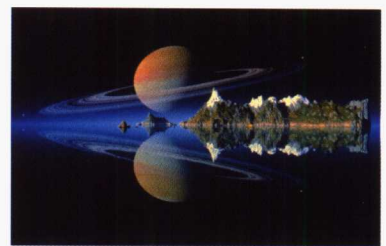
FIGURE 8-88



(a)



(b)



(c)

FIGURE 8-87

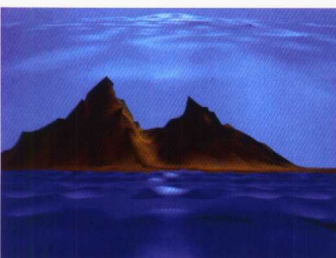


FIGURE 8-95

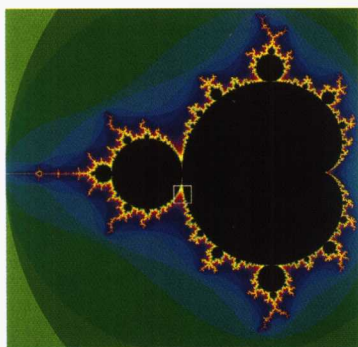


(a)

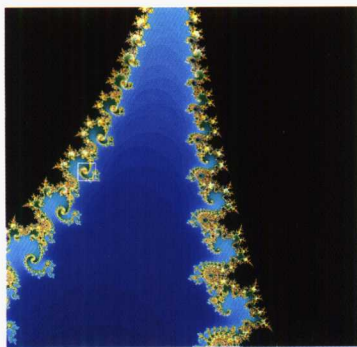


(b)

FIGURE 8-103



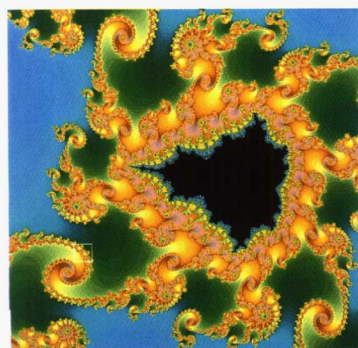
(a)



(b)



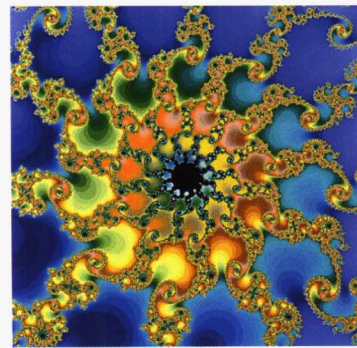
(c)



(d)



(e)



(f)

FIGURE 8-102

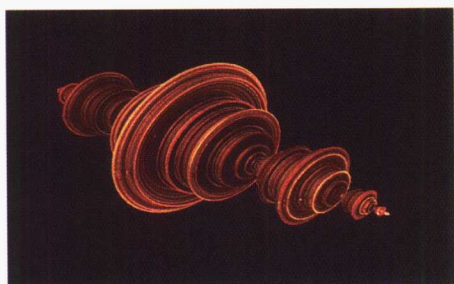
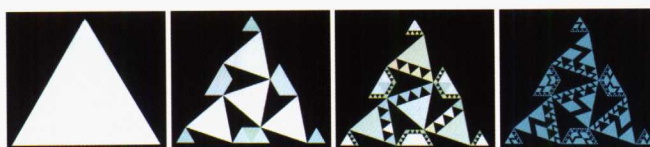


FIGURE 8-104



(a)

(b)

(c)

(d)

FIGURE 8-108

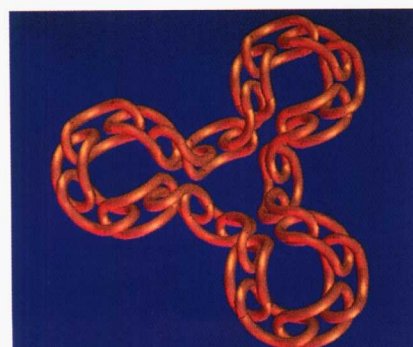


FIGURE 8-110

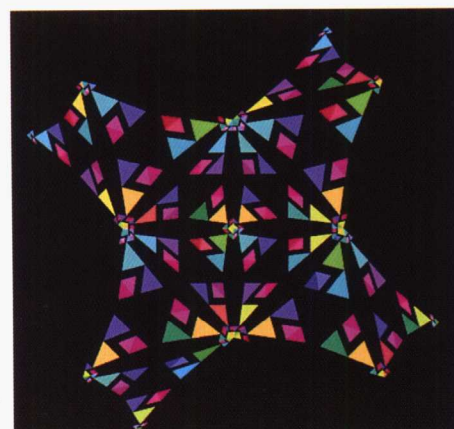


FIGURE 8-109