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Chapter 5. Texture Mapping 5.1 Loading Texture Images; 5.2 Texture Coordinates; 5.3 Loading Texture Images from the Frame Buffer; 5.4 Environment Mapping; 5.5 3D Texture; 5.6 Filtering; 5.7 Additional Control of Texture Level of Detail; 5.8 Texture Objects; 5.9 Multitexture; 5.10 Texture Environment; 5.11 Summary; Chapter 6. Rasterization and Fragment Processing; 6.1 Rasterization; 6.2 Fragment Operations; 6.3 Framebuffer Operations; 6.4 Summary; Chapter 7. Window System and Platform Integration; 7.1 Renderer and Window State; 7.2 Address Space and Threads; 7.3 Anatomy of a Window 7.4 Off-Screen Rendering 7.5 Rendering to Texture Maps; 7.6 Direct and Indirect Rendering; Chapter 8. OpenGL Implementations; 8.1 OpenGL Versions; 8.2 OpenGL Extensions; 8.3 OpenGL ES for Embedded Systems; 8.4 OpenGL Pipeline Evolution; 8.5 Hardware Implementations of the Pipeline; 8.6 The Future; Part II: Basic Techniques; Chapter 9. Multiple Rendering Passes; 9.1 Invariance; 9.2 Multipass Overview; 9.3 The Multipass Toolbox; 9.4 Multipass Limitations; 9.5 Multipass vs. Micropass; 9.6 Deferred Shading; 9.7 Summary; Chapter 10. Antialiasing; 10.1 Full-Scene Antialiasing; 10.2 Supersampling 10.3 Area Sampling 10.4 Line and Point Antialiasing; 10.5 Antialiasing with Textures; 10.6 Polygon Antialiasing; 10.7 Temporal Antialiasing; 10.8 Summary; Chapter 11. Compositing, Blending, and Transparency; 11.1 Combining Two Images; 11.2 Other Compositing Operators; 11.3 Keying and Matting; 11.4 Blending Artifacts; 11.5 Compositing Images with Depth; 11.6 Other Blending Operations; 11.7 Dissolves; 11.8 Transparency; 11.9 Alpha-Blended Transparency; 11.10 Screen-Door Transparency; 11.11 Summary; Chapter 12. Image Processing Techniques; 12.1 OpenGL Imaging Support; 12.2 Image Storage 12.3 Point Operations

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### Sommario/riassunto

Today truly useful and interactive graphics are available on affordable computers. While hardware progress has been impressive, widespread gains in software expertise have come more slowly. Information about advanced techniques-beyond those learned in introductory computer graphics texts-is not as easy to come by as inexpensive hardware. This book brings the graphics programmer beyond the basics and introduces them to advanced knowledge that is hard to obtain outside of an intensive CG work environment. The book is about graphics techniques-those that don't require esoteric hardware or

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