



>> **New Media! New Practical Way!**

// 2008. 04. 26

// 演讲: 苗注雨 刘晓光



+ 内容

+ 1. 新媒体创作常见的手法

+ 2. 一些开源软件的介绍

+ 3. 艺术院校于工科类院校的结合教育

+ 4. case Study

New media art is an art genre that encompasses artworks created with new media technologies, including computer graphics, computer animation, the Internet, interactive technologies, robotics, and biotechnologies.


More recently, the term "new media" has become closely associated with the term Digital Art, and has converged with the history and theory of computer-based practices.

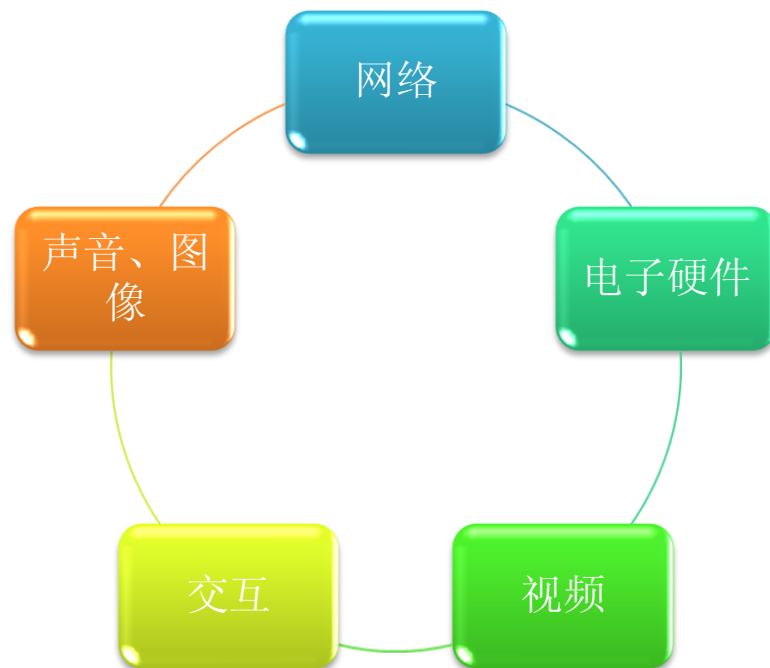
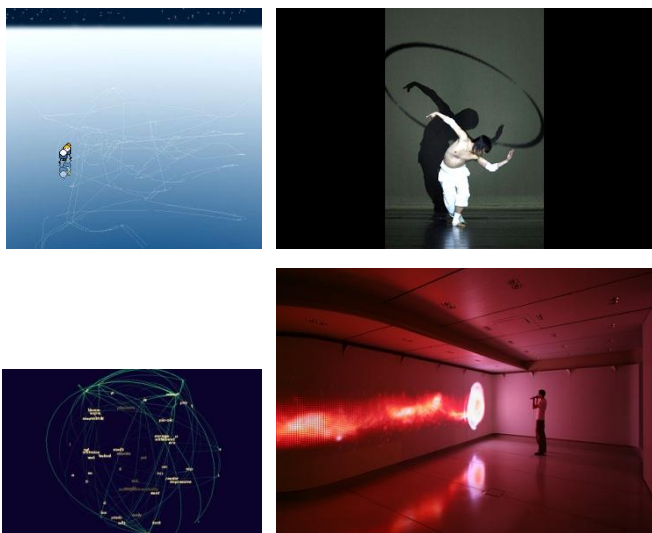
1. 新媒体创作常见的手法

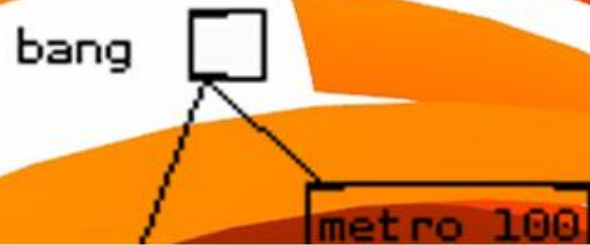
- a. 传统的教学方式手段及弊端
 - b. 昂贵的软硬件对于学生的负担
-



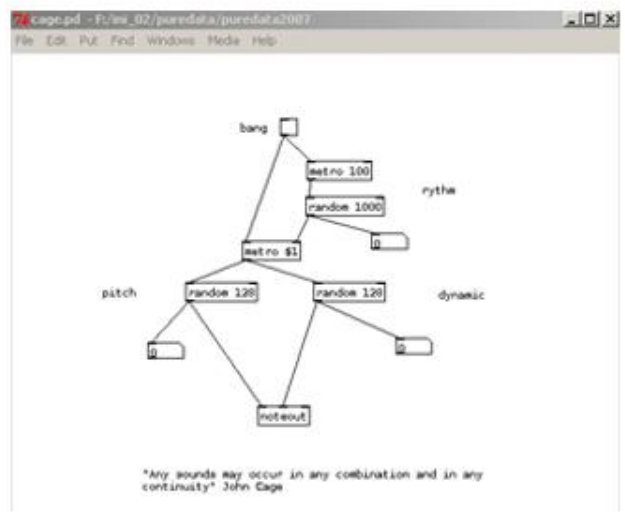
2. 一些开源软件的介绍

- a. processing
 - b. puredata (Max/Msp)
 - c. vvvv
 - d. NodeBox
 - e. OFW
-
- 





Miller Puckette



实时的基于可视化的编程环境

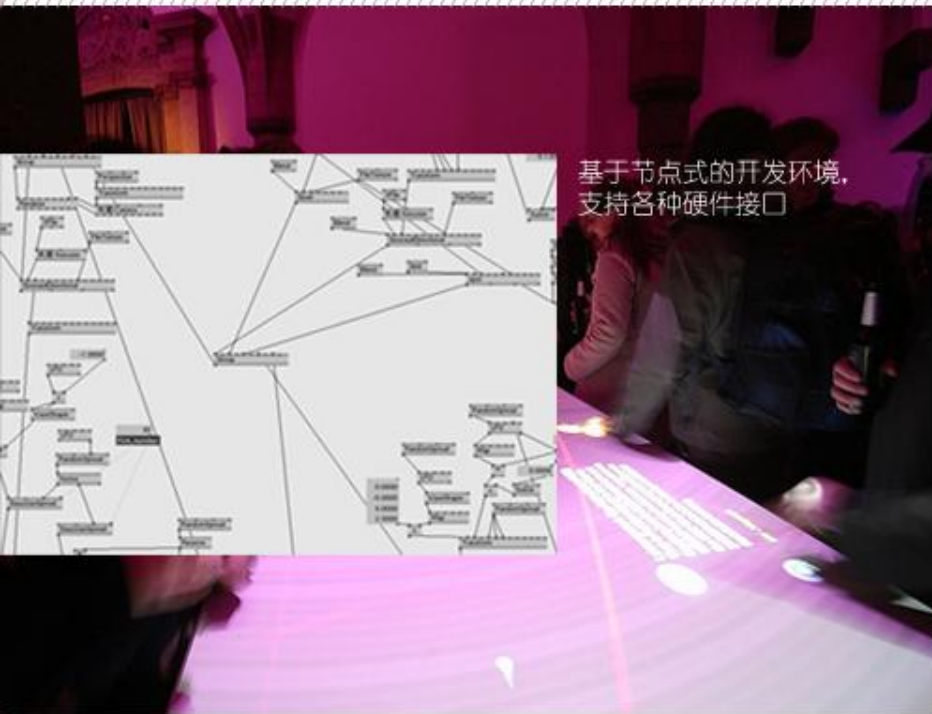
可以进行声音、图像、视频等实时的操作
免费并且跨平台，社区活跃并且有大量的人
提供patch

<http://puredata.info/>





Everything You kNow iS wRong!



基于节点式的开发环境，支持各种硬件接口



Effortless handling of multiple Objects



Loading 3d Models



Real-time Video Analysis



A multi-projection setup



Texturing 3d Models



Audio capabilities



DirectX based 3d Rendering



Real-time Shader Programming



Real-time Physics Simulations



Interfacing with external devices



NodeBox

Create visual output with Python programming code



Jeospheres



Mark Meyer's L-systems



Organic Universe



Andren's master thesis



Web library



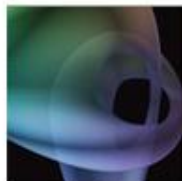
Frédéric Albers' fairytales



Colors library



Workshop | Helsinki 2008



Parametric surfaces



Texture tiles



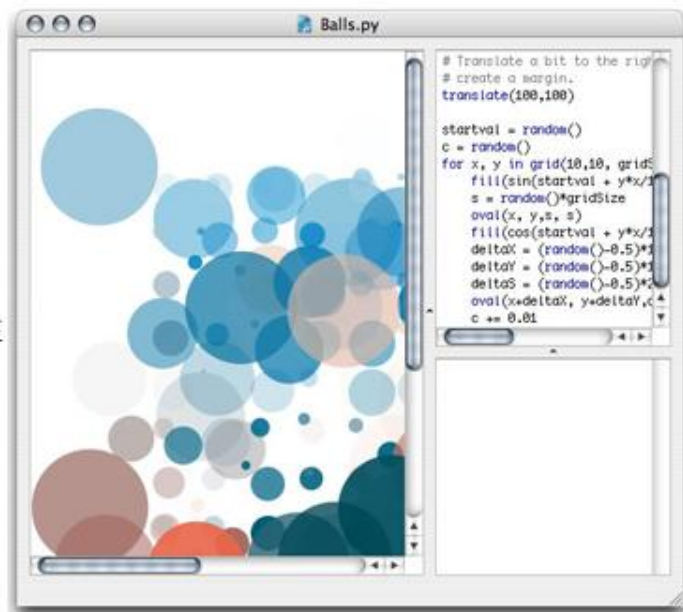
Tendrils



Growing things

基于Python, 相对于processing
而言NodeBox更加易学

被国外的艺术院校广泛的使用在
教学当中



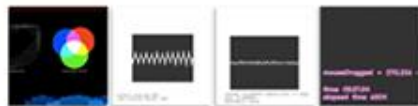
```
//-----  
void ofApp::draw() {
```

```
    ofSetupScreen();
```

```
    ofSetColor(0xFFFFFFFF);
```

```
    bikers.draw(0,0);
```

OpenFrameWorks
Zach Lieberman and Theodore Watson



advanced graphics audio input audio output event handling



font loading graphics image loading image saving



serial I/O soundfile playback soundfile fft screen to texture



textures video grabbing video playing


基于C++基础，提供更高一级的一些程序接口，支持声音、图像、视频、硬件、等各种方式
同时针对艺术家和设计师简化了传统的c++语法结构，使之更适合进行作品的创作和开发。



```
        int n = DIKEICON.height;  
        for (int i = 0; i < w; i++){  
            for (int j = 0; j < h; j++){  
                int value = pixels[j * w + i];  
                float pct = 1 - (value / 255.0f);  
                ofCircle(i*10, 500 + j*10, 1 + 5*pct);  
            }  
        }  
    }
```



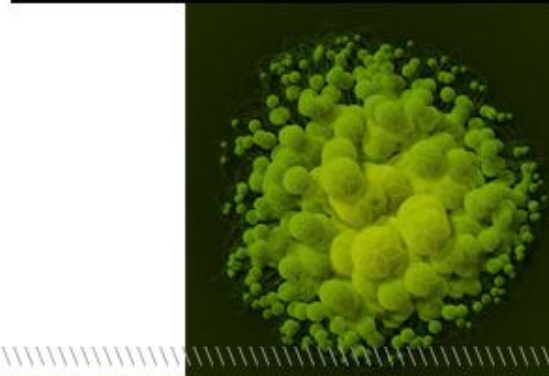
3. 艺术院校于工科类院校的结合教育（不同专业背景的融合）

- a. 如何发挥理工科学生的优势，以及如何培养他们的艺术修养
 - b. 如何让艺术和设计背景的学生学习“程序”这门“艺术”
 - c. 结合的力量
-
- 

NodeBox

Create visual output with Python programming code

"Semantic Networks and Graphic Design"



Augmented Kanji
Revealing the conceptual network

```
g = graphcreate(42, 1000, 3)
```

```
# Create a totally random network  
# connect the nodes randomly.
```

```
# CONNECTIONS  
global conn  
def connect(id1, id2):  
    g.add_edge(id1, id2)  
    print 'connected nodes'  
    print id1  
    print id2
```

```
def newnode(id, str, print):  
    node = g.add_node(id)  
    node.strength = str  
    global conn  
    if print != None:  
        conn(print, id)  
    return node  
    # print id
```

```
Relative strengths for node types  
#-----  
conceptual = 60 # base for all
```

```
20  
60  
30  
30  
30  
10  
8  
30  
20  
Primitives  
Meaningful  
Meaningful
```

The diagram shows a hierarchical structure of nodes. At the top is 'MEMORY TRACES', which connects to 'KEY IMAGES', 'SOUND ICONS', 'COLOR', and 'MULTISENSORY'. 'MULTISENSORY' connects to 'HELPERS'. Below this is 'PRINT FROM WIKIPEDIA', which connects to 'BASE FOR ELEMENTS'. 'BASE FOR ELEMENTS' connects to 'STORY', 'TERMIN', and 'SPRAPHONICS'. 'SPRAPHONICS' connects to 'PRIMITIVES'. 'PRIMITIVES' connects to 'MEANINGS' and 'SEMANTIC'. 'MEANINGS' connects to 'WORDNET', 'CONNOTATIONS', and 'SHARED MEANINGS'. 'SEMANTIC' connects to 'SEMANTIC' and 'SEMANTIC'. 'SEMANTIC' connects to 'OTHER KANJI' and 'GROUP'. 'OTHER KANJI' connects to 'OTHER KANJI' and 'GROUP'. 'GROUP' connects to 'GROUP'.

