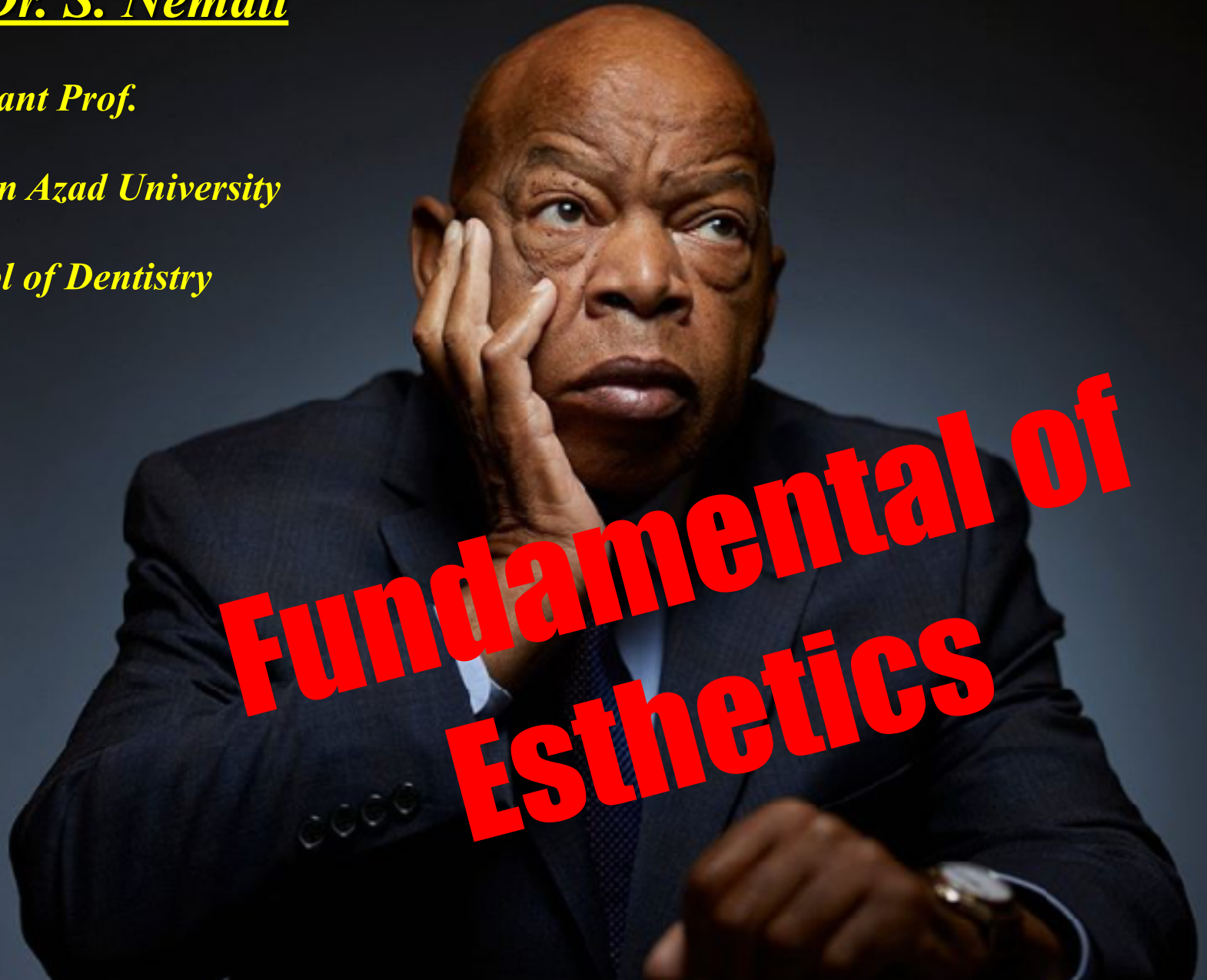


by Dr. S. Nemati

Assistant Prof.

Tehran Azad University

School of Dentistry




Fundamental of Esthetics

Esthetics



*Is Some Thing Very **Personal**
Depend on Time, Geographic
Region, religion ...
What the Patient Think It Is*



Beauty is eternity gazing at
itself in a mirror

aru











gettyimages®

Piotr Strykowski

9/660452



K

Italy

AFRICAN BEAUTY









After

T
D
H



1- Factors Related to the Teeth to Be Restored

- *A- size*
 - *B- shape*
 - *C- color*
 - *D- surface texture*
 - *E- facets (shape , size, location...)*
-

2- Factors Related to the Adjacent Teeth

- A- embrasures
 - B- proportionality
 - C- balance
 - D- alignment
 - E- contact relationship
-

3- General Factors

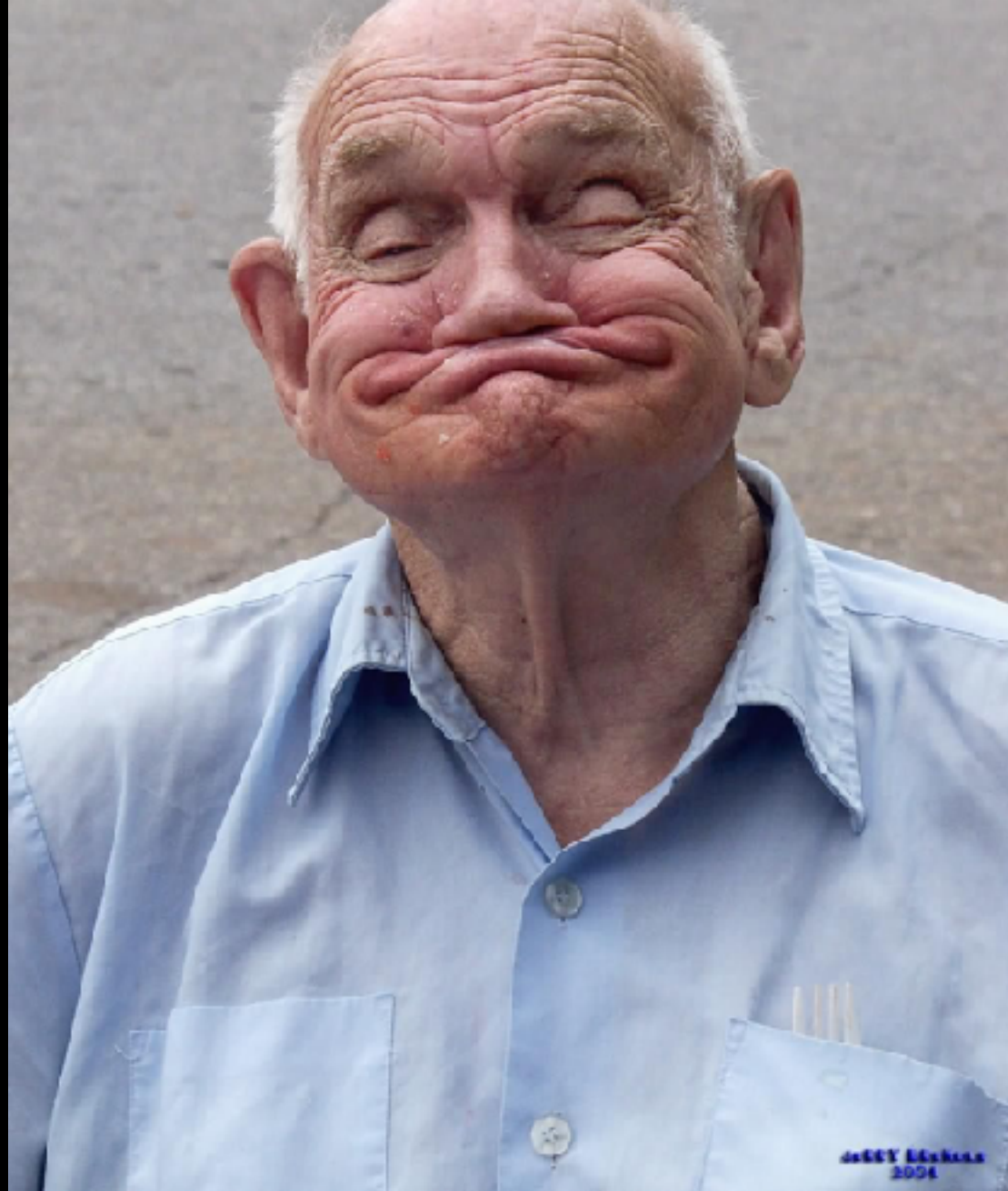
- A- gingival contour
 - B-Form & thickness of lips
 - C-Smile line
 - D- relationship of the midline of the teeth with face
-

Size

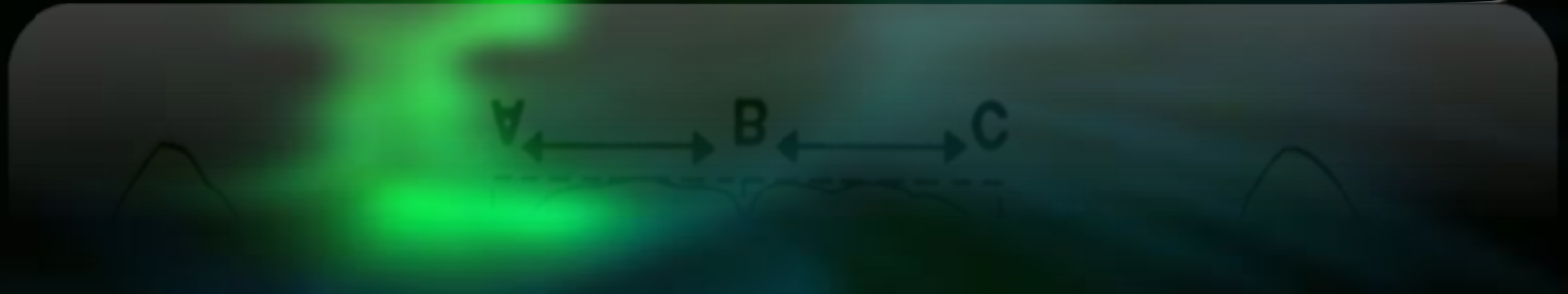
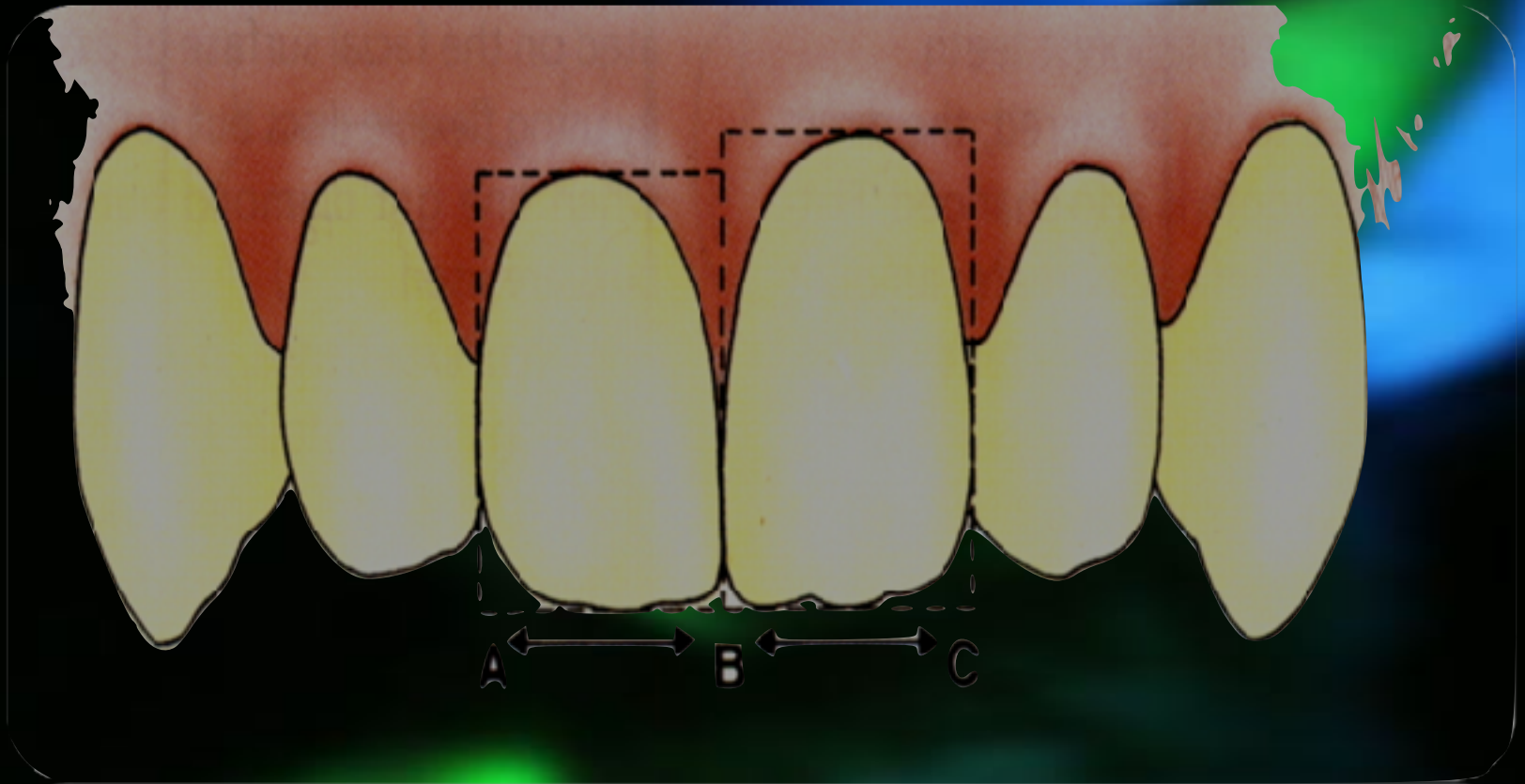
- *Size affect apparent width (diastema closure)*
- *During youth incisal edge of upper incisors are 2-3 mm longer than upper lip line at rest*
- *Mean exposure of incisal level:*
 - men 1.9mm*
 - women 3.4mm*

Size

- *The mean visible length of upper incisors diminish with age but lower incisors increase*
- *The more exposed incisal edge the younger the patient's appearance*





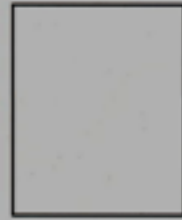


Types of basic forms

Square

Triangular

Oval



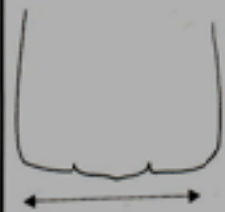
A
Facial ridges and grooves (frontal view)



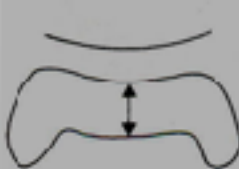
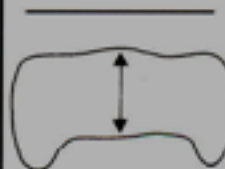
B
Incisal line (incisal view)



C
Incisal line (frontal view)



D
Thickness and lip line (horizontal sectioning at center of crown)



Square



**Square
Tapering**



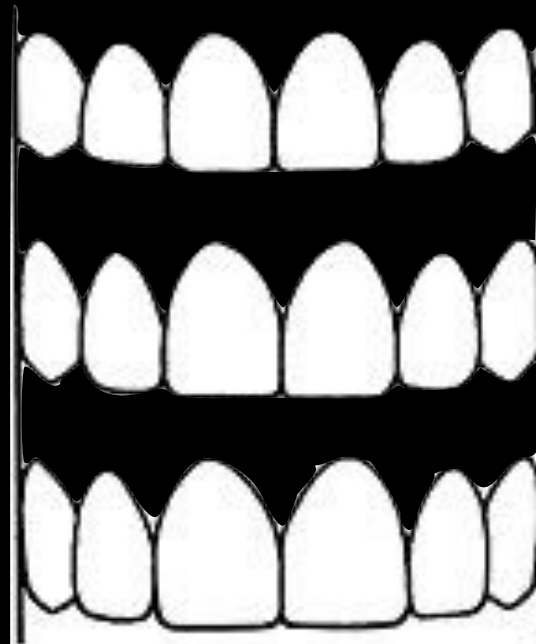
Tapering



Proportion

- *Golden proportion* .618 # 60%
- *Central incisors* : length / width = 10/8
- *Canine as a guide when all ant. damaged*

RED. (Recurrent Esthetic Dental)proportion



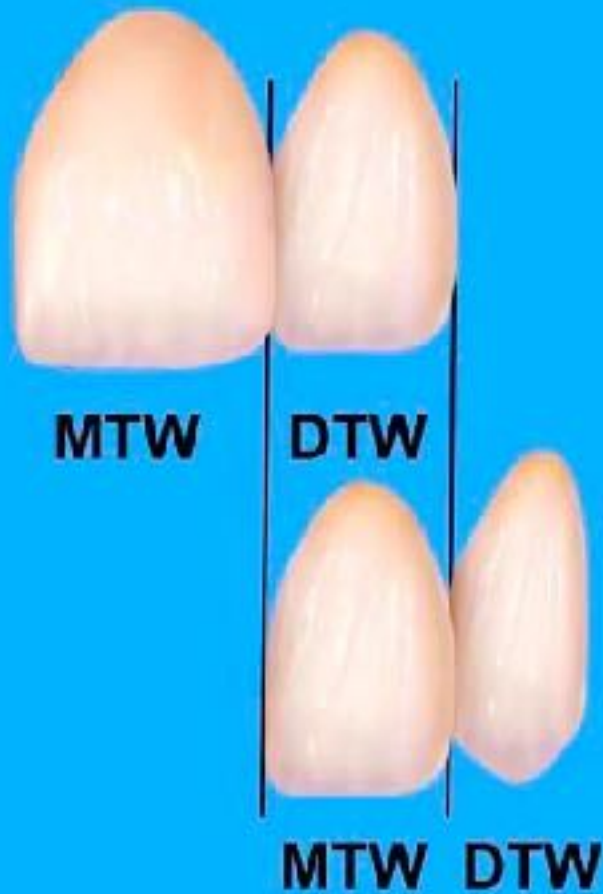
(78% Central Incisor w/l ratio)

80% RED

70% RED

62% RED

(Golden
Proportion)



$$\frac{\text{DTW (Distal Tooth Width)}}{\text{MTW (Mesial Tooth Width)}} = \text{constant}$$



X

0.7x

0.49x
(0.7*
0.7x)

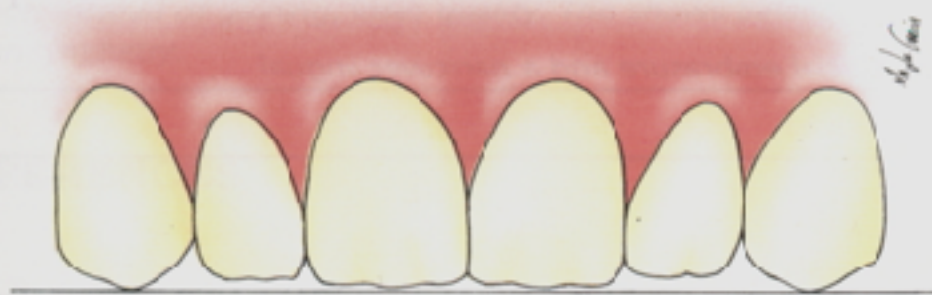
Surface Texture

- *Alter over time*
- *Young teeth = characterizations*
- *The more light reflect from surface the wider, lighter, closer the teeth*

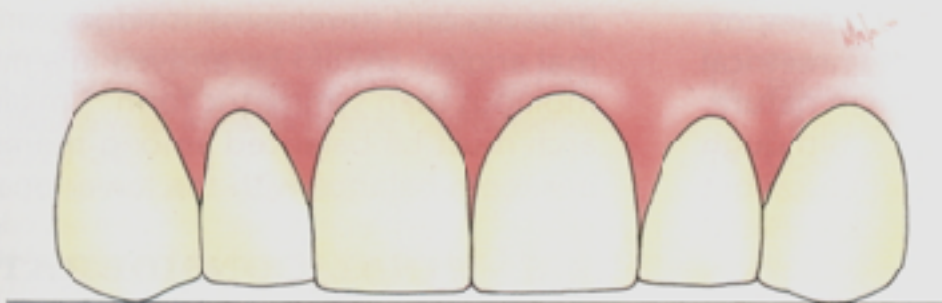
Incisal Embrasures

- *It changes over time*
- *Modify perception of width (smaller emb. Make tooth look wider)*
- *Incisal emb. Increase moving distally*
- *Women have more wider embrasures*

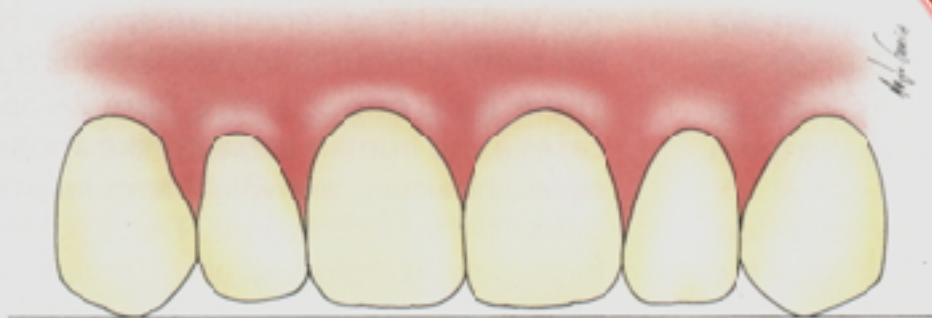
Embrasure shape, and the appearance of width



Teeth with a normal width appearance (normal incisal embrasure)



Wider looking teeth (a smaller than normal incisal embrasures)



Smaller width looking teeth (a larger than normal incisal embrasure)

Laminating

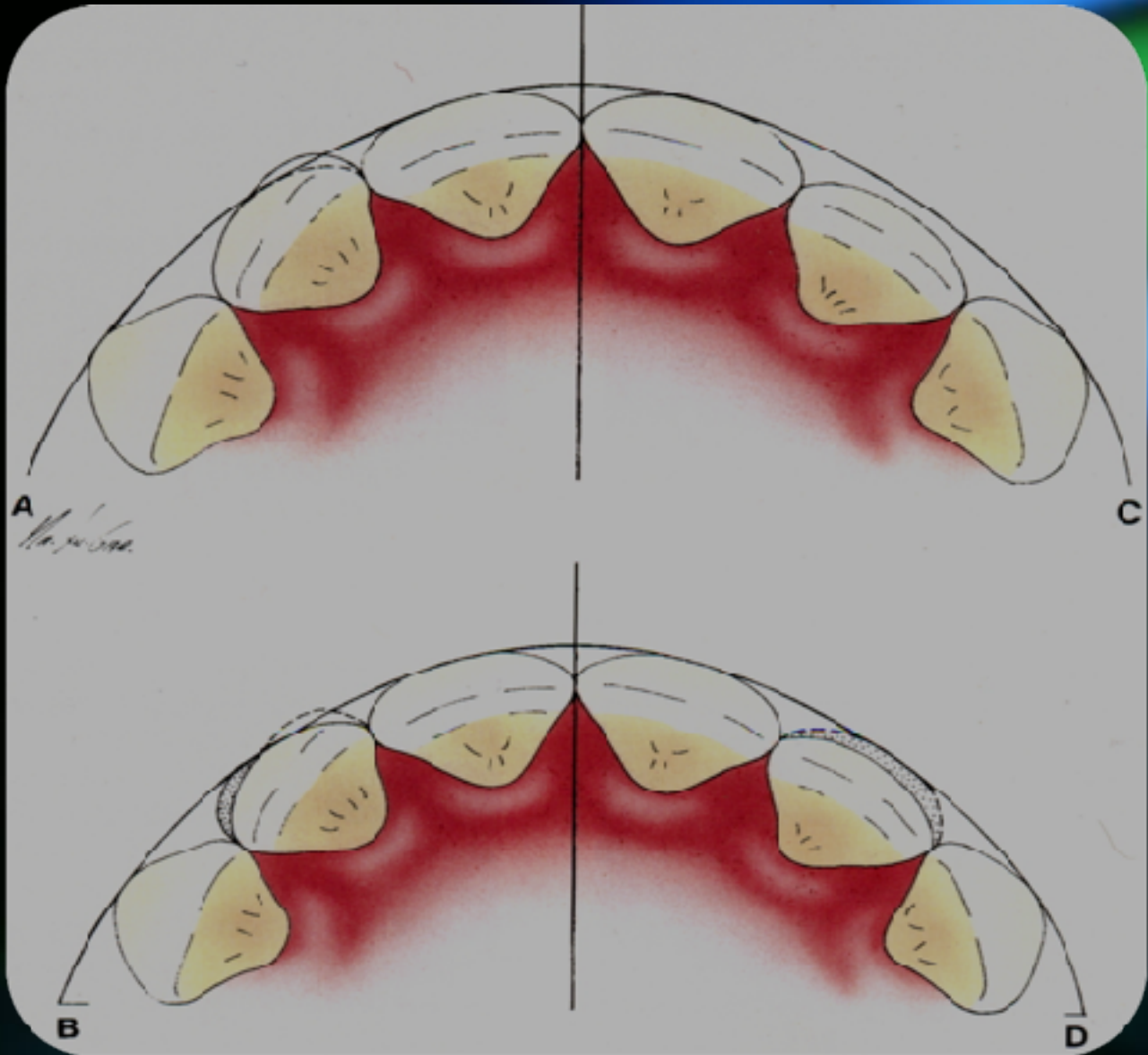


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S M I L E

- Typical youthful feminine smile.
- *Rounded incisal edge.*
- *Open incisal embrasures.*
- *Subtle facial line angles.*

- Typical men smile.
- *More closed emb.*
- *Prominent incisal line angles.*
- *Prominent canines.*







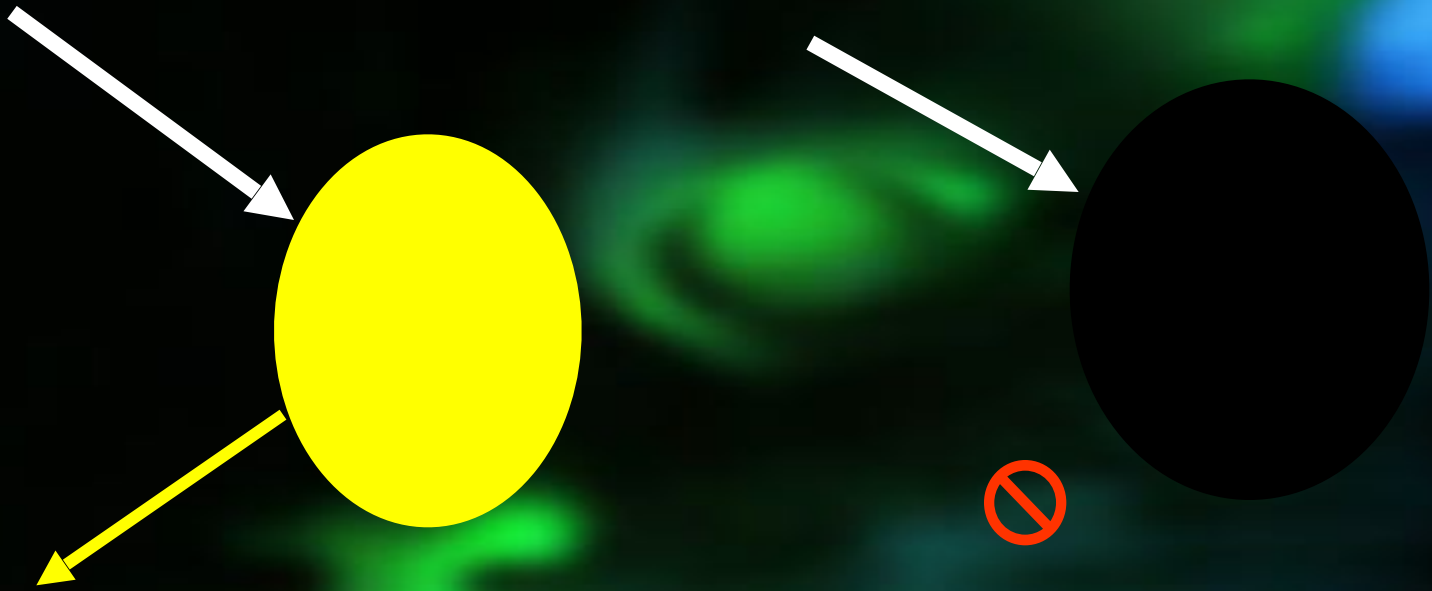
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- Light

- SHADOW



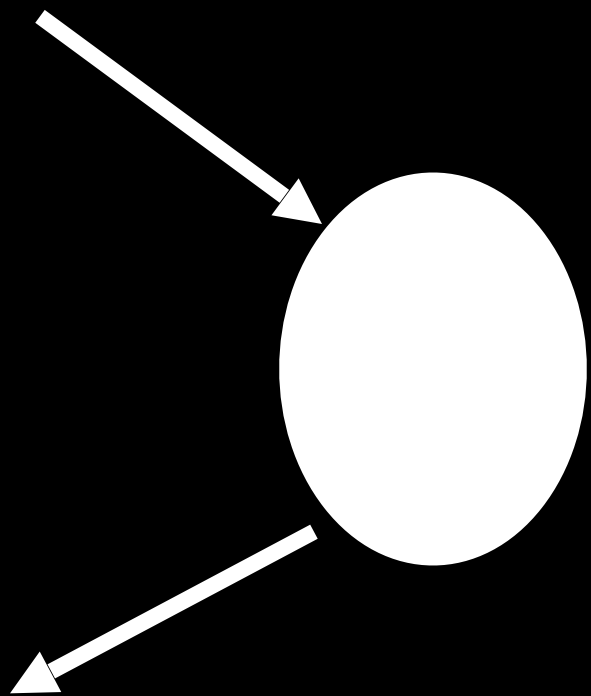




Fig. 2-1. Unidirectional, unnatural lighting throws no shadows. Only length and width are represented.

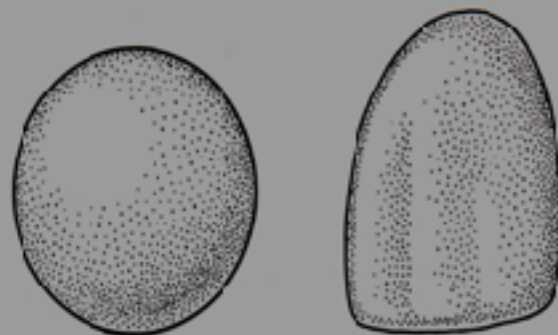


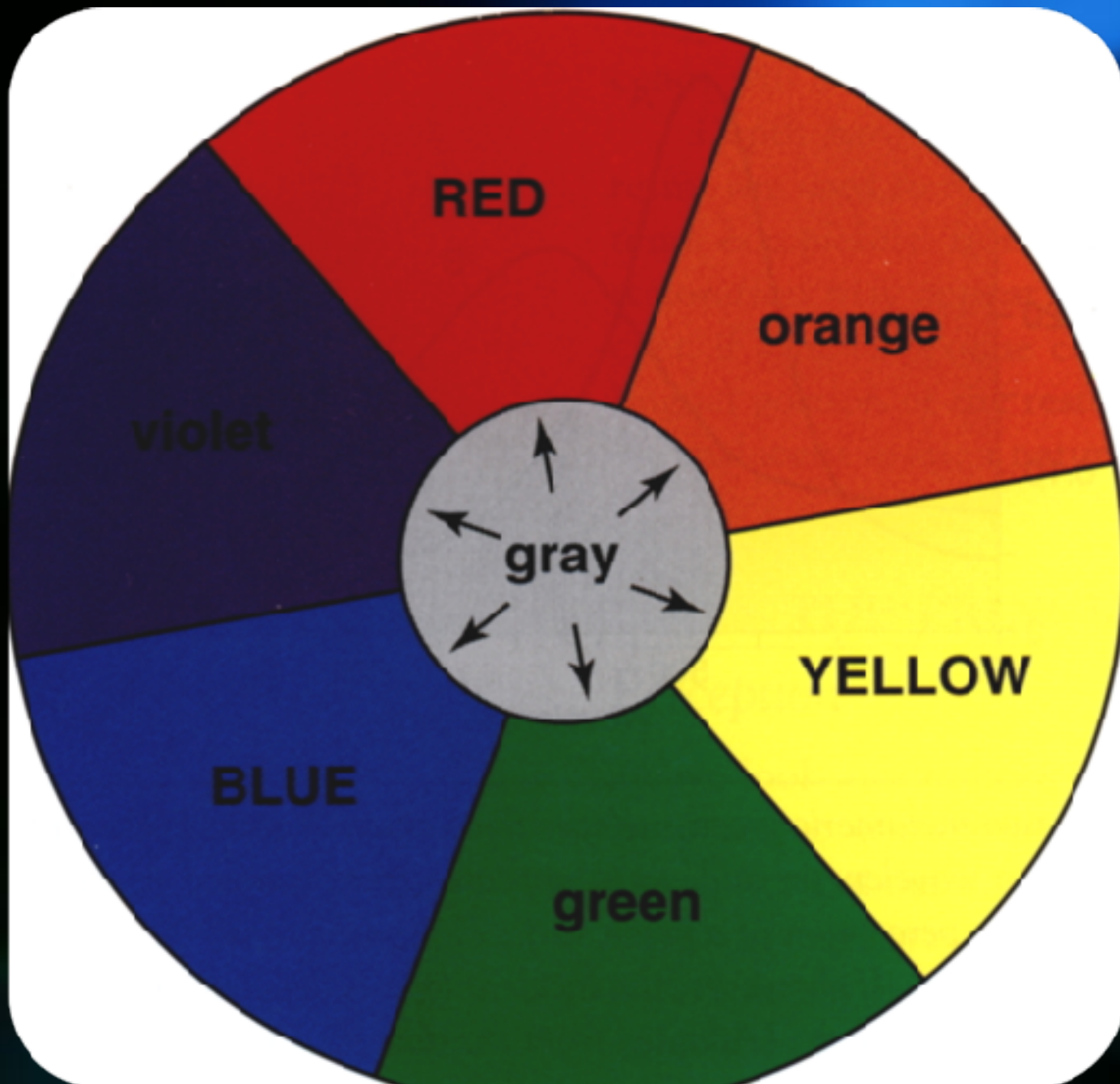
Fig. 2-2. Natural lighting is multidirectional. It throws shadows and therefore promotes a feeling of depth—a three-dimensional effect.

Natural Tooth Is Polychromatic

- **The principles
of Color**

- HUE (name of color)
- CHROMA (saturation)
- VALUE (brightness)

Value is the most important factor in shade matching



RED

orange

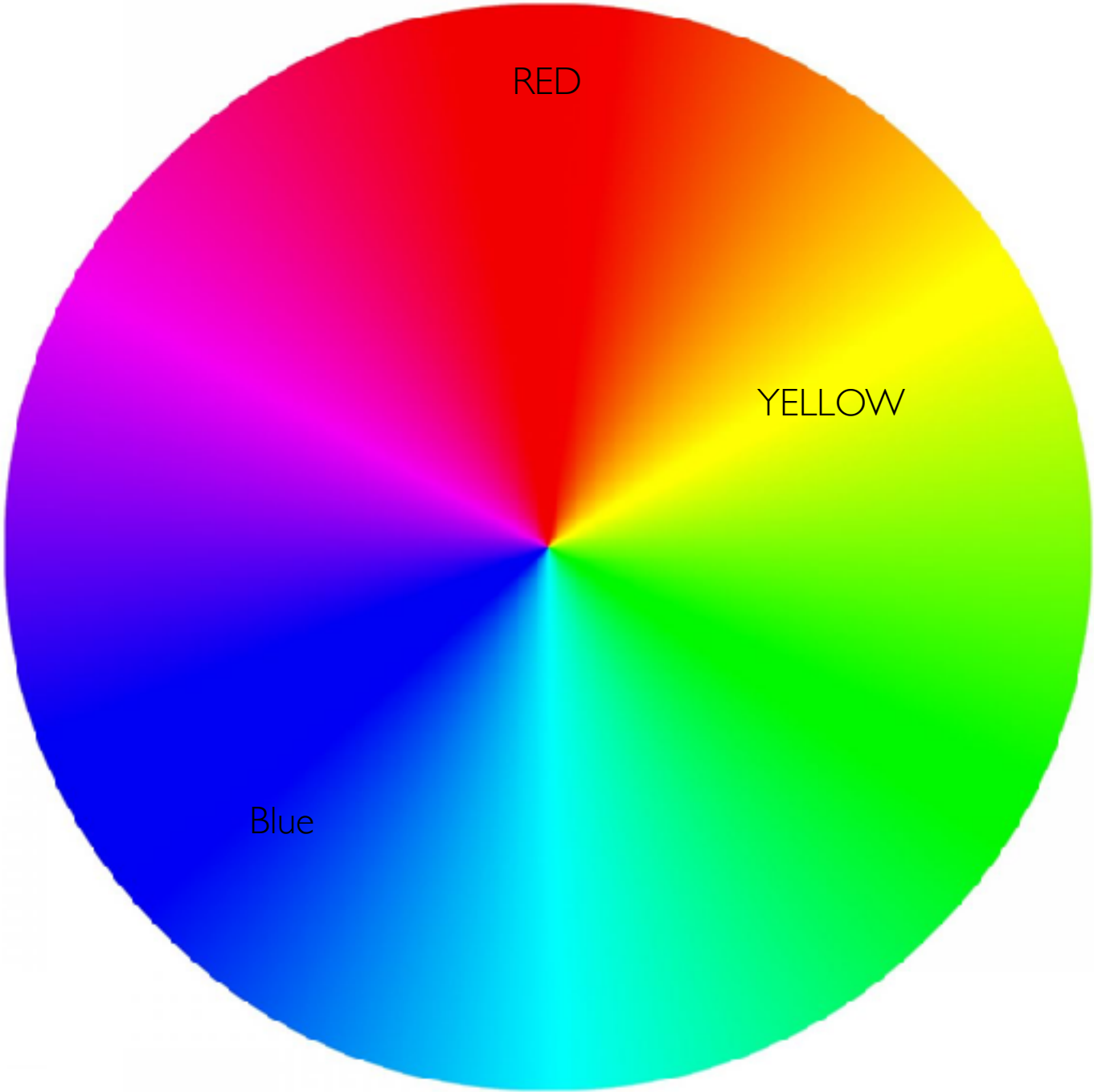
violet

gray

YELLOW

BLUE

green



RED

YELLOW

Blue



- Primary hues (RYB)
- Secondary Hues (mix. Of 2 primary)
- Complementary hues (directly opposite each other)

Complementary Colors

- Enhance the appearance of each other







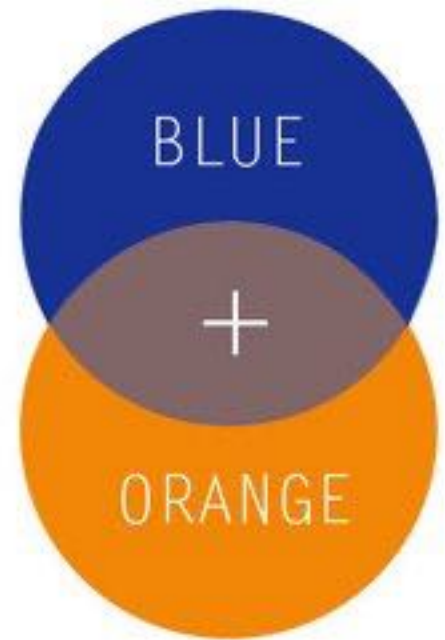
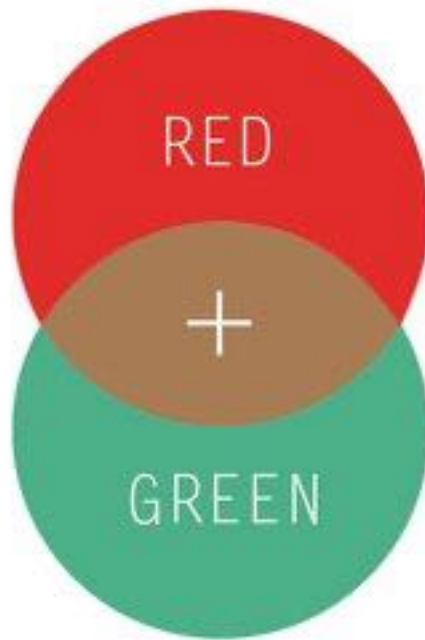
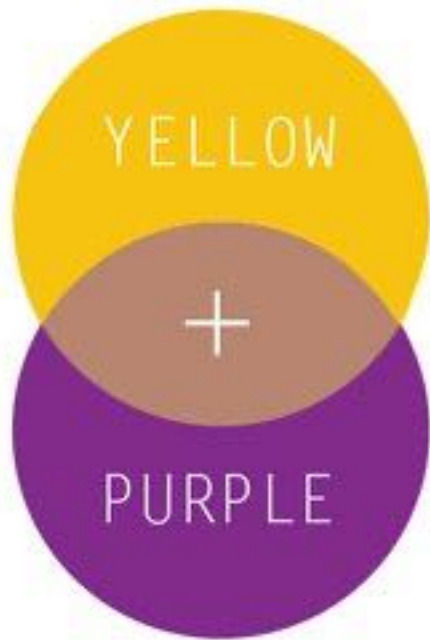


*Primary hue + Complementary Secondary hue =cancel out
both colors*

ie: Gray


Clinical Tip

*To change hue, lessen chroma, or lower value ,
place the complementary hue over the color to be
modified*







 Tokuyama Dental

ESTELITE COLOR

Light-cured Characterizing Material



KIT





- Metamerism
- *There is more than one way to produce color*
- *1- pure color (green)*
- *2 -mixture (blue + yellow)*

The Best Way for Color
Matching
Use 3 Light Source

Day Light

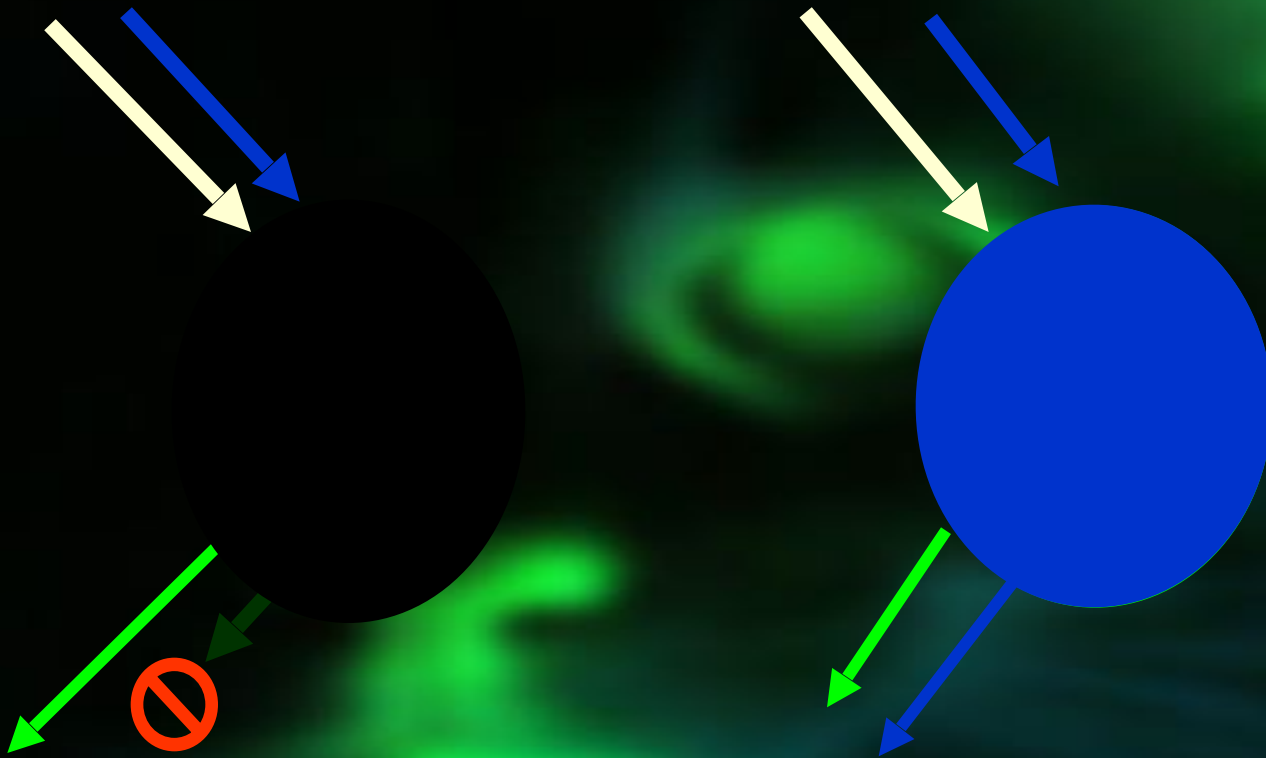
Operatory Lamp

Cool White Fluorescent

Metamerism

• PURE GREEN

GREEN (Y+B)



Opacity

(Dentin)

Translucency

(Enamel)

Opalescency



- Translucency provide realism

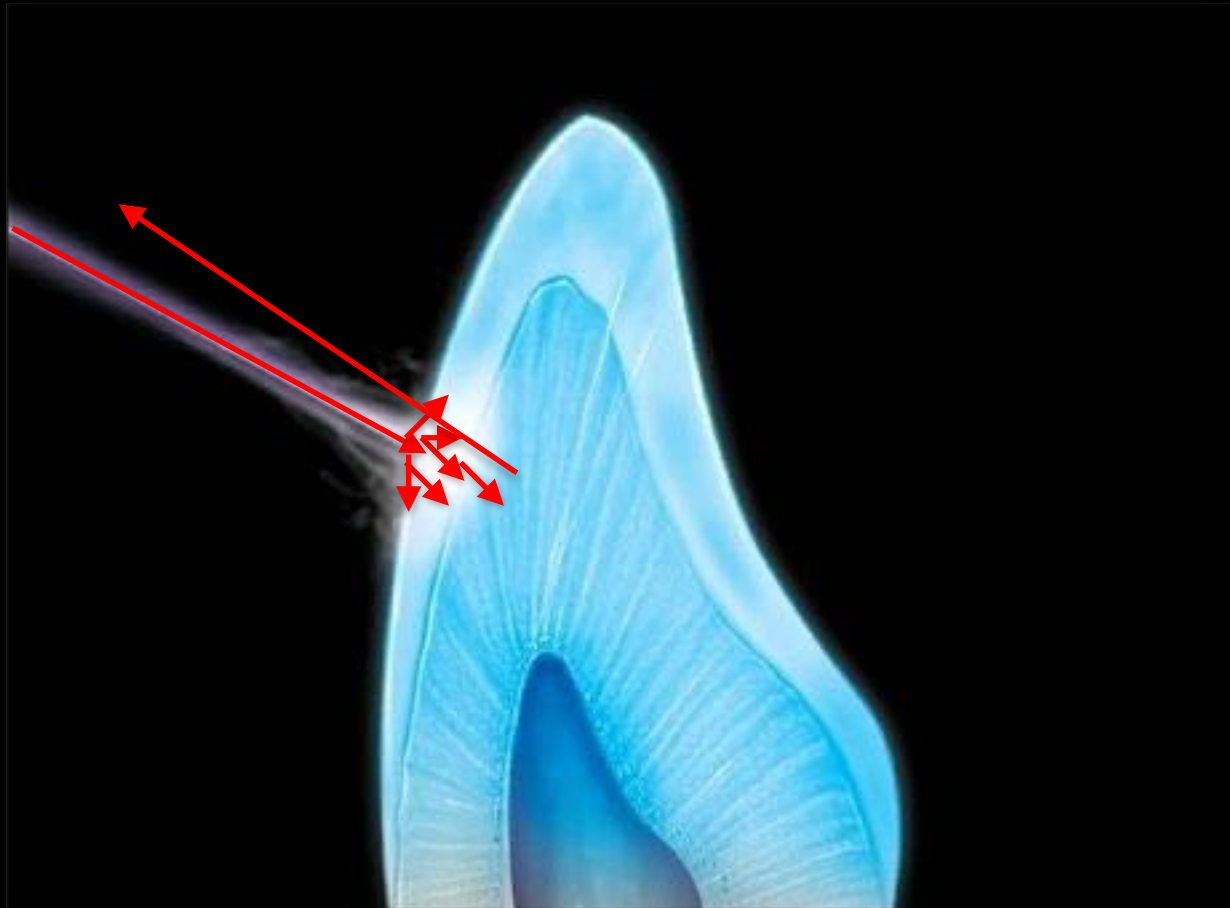


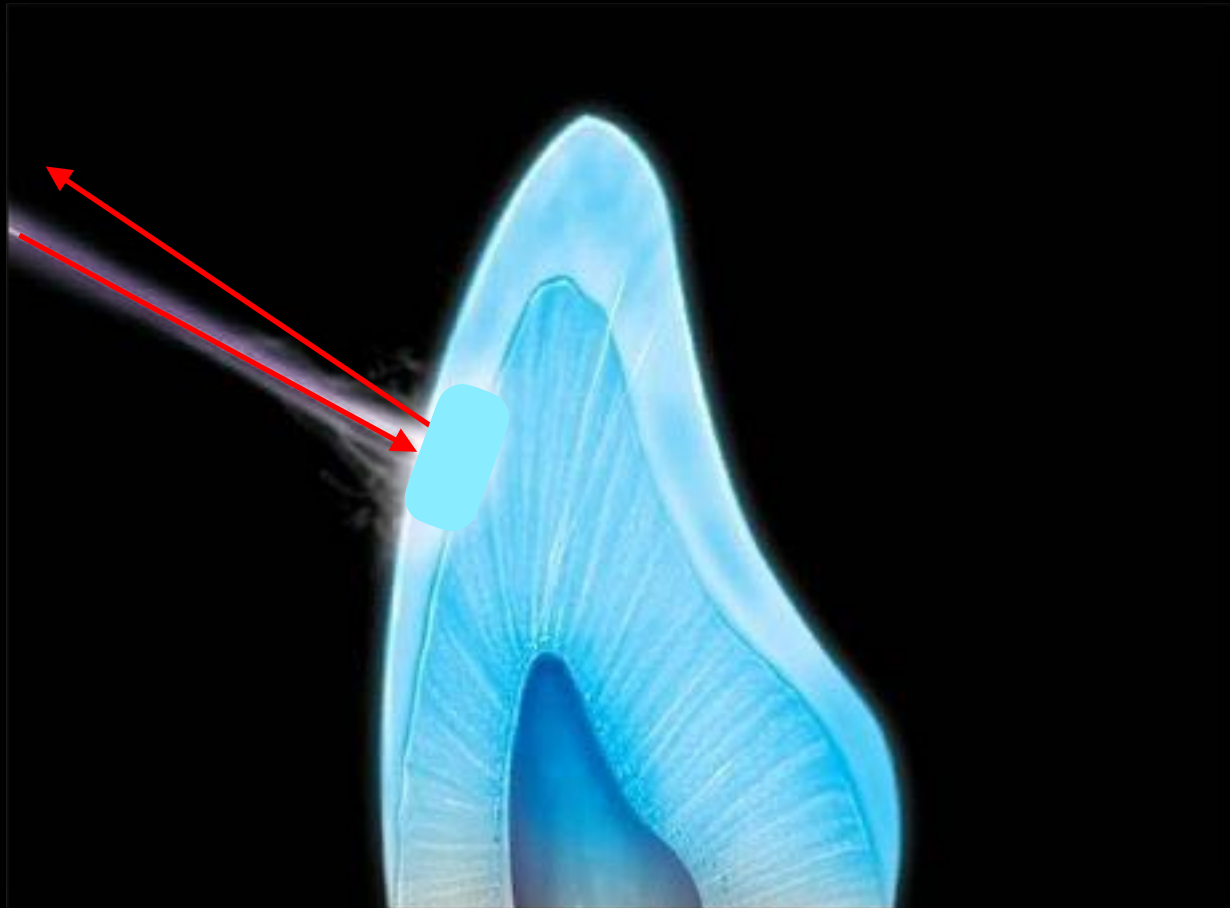


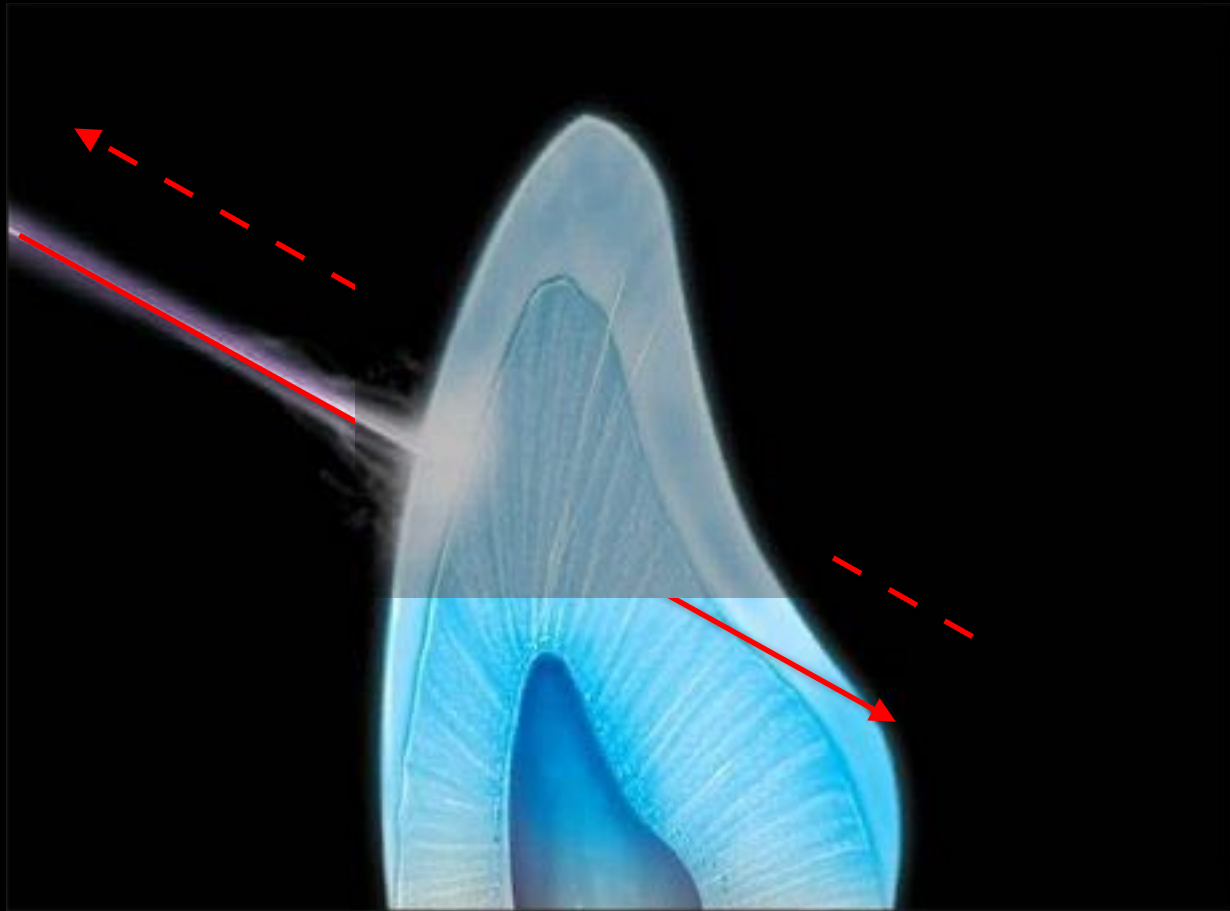


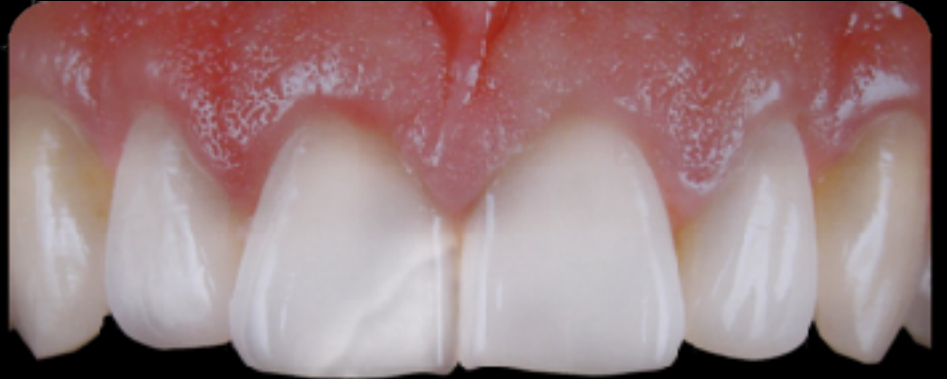














The principle of line

- Horizontal lines create the illusion of width
- Vertical lines create the illusion of height

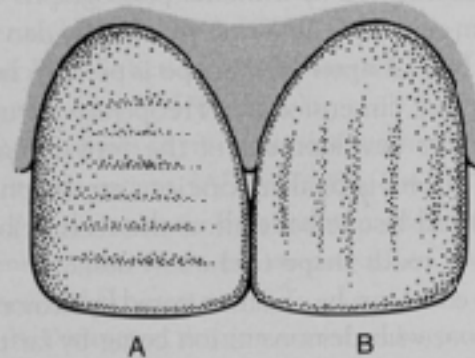


Fig. 2-17. The principle of line can be used to create the illusion of a longer or shorter tooth. Stain lines, texturing, and modification of the face and incisal edge all contribute to the illusion.

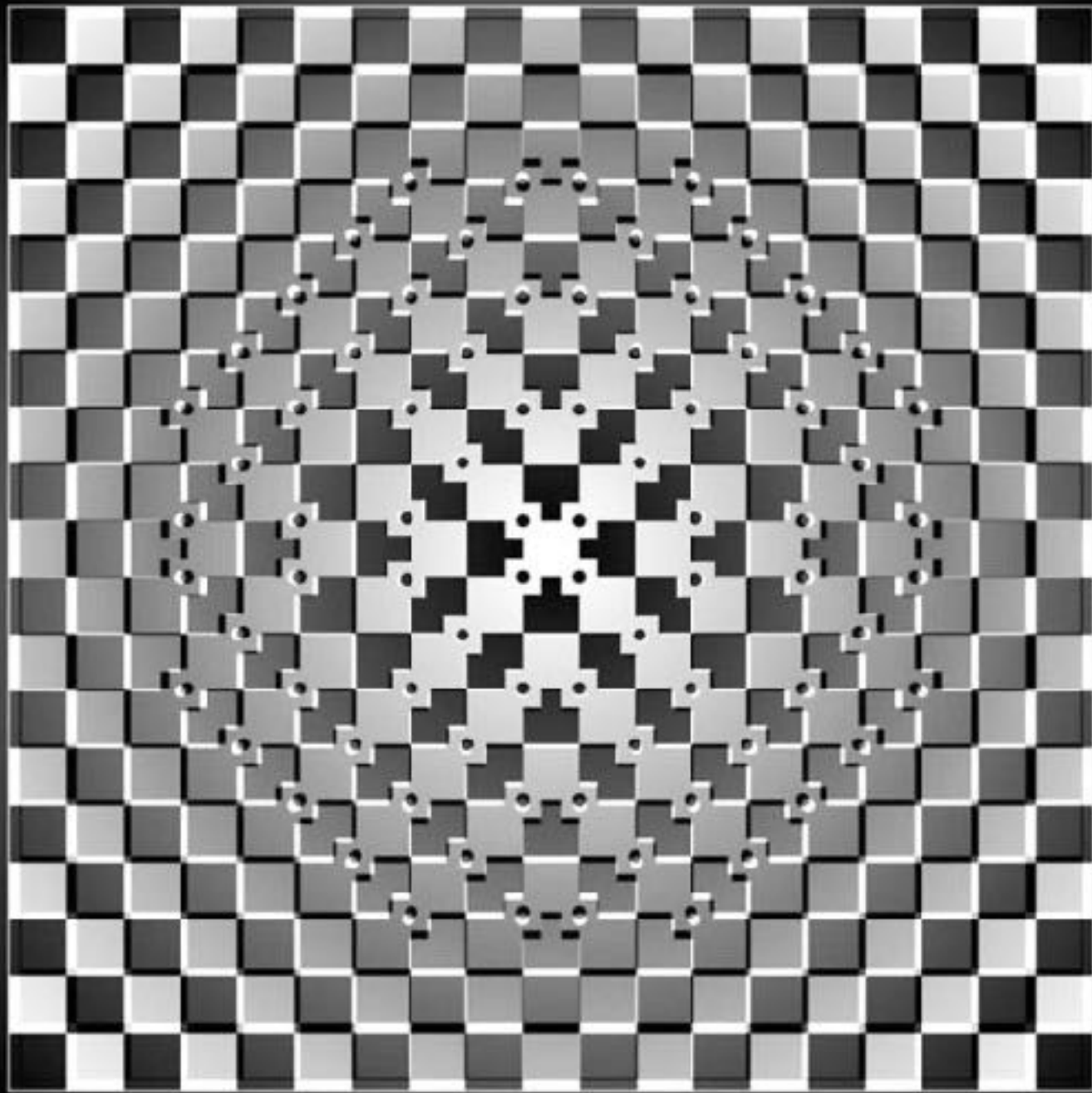
Illusion

- *The art of changing perception to cause an object to appear different than it is*

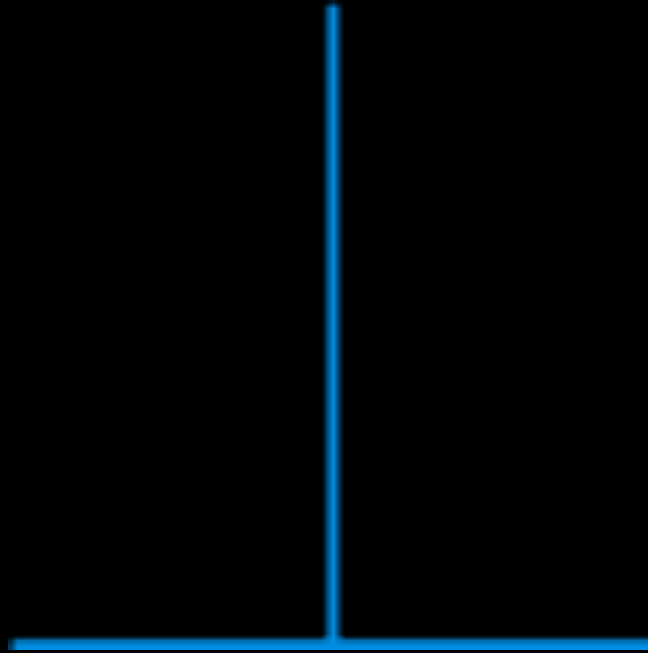
Illusion say:



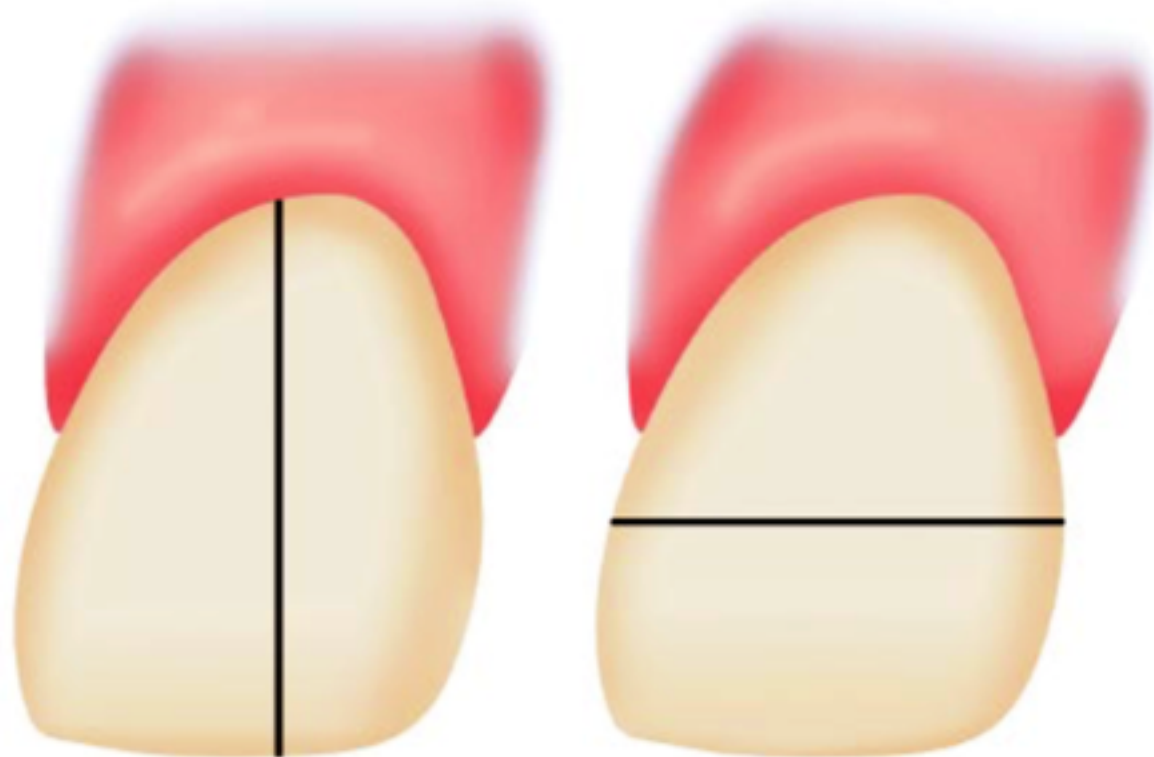
LIE TO ME







Although the lines are of equal length, the vertical line appears longer because the brain spends more time “seeing” the vertical and interprets longer time as longer length.



(H)

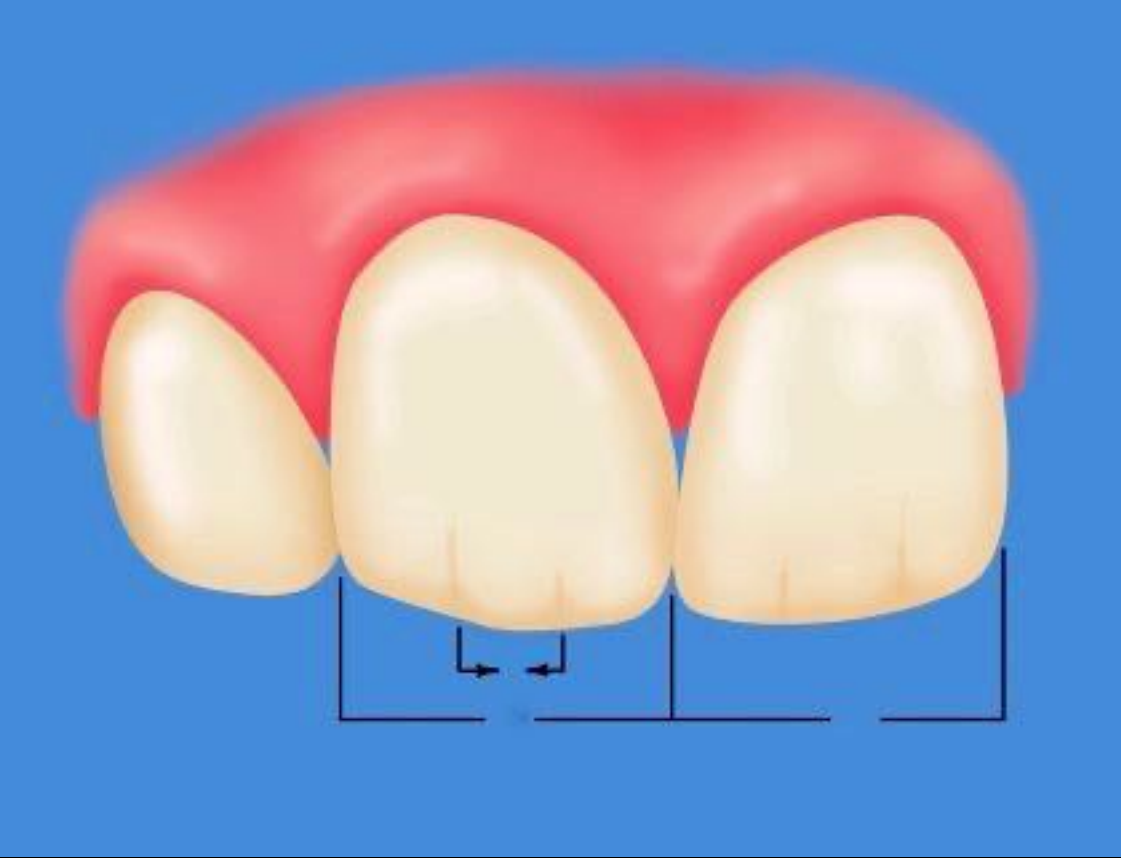
1

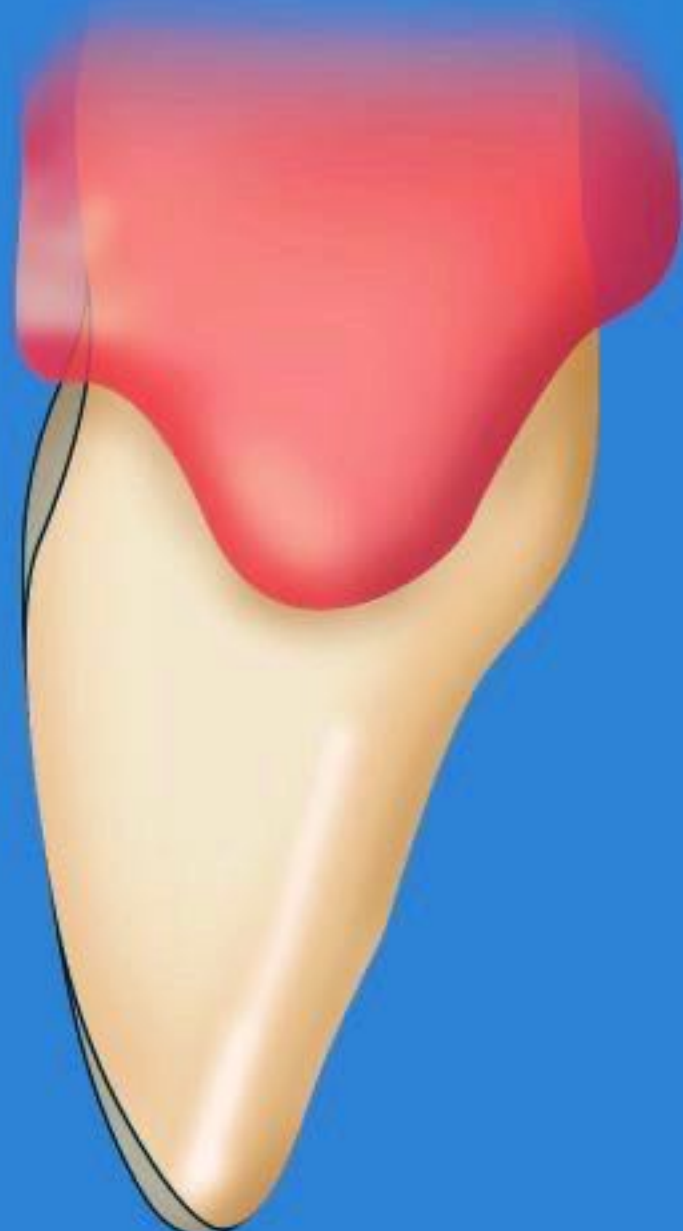
2

Figure 8.2 (H) Although teeth 1 and 2 are equal in size, the accent lines make tooth 1 appear longer and tooth 2 appear wider.

- Contrast ↑ Visibility ↑
- Light Reflection ↑ Visibility ↑
- Light Deflection ↑ Visibility ↓

Curved lines and surfaces are softer, more pleasing, and perceived as more feminine than sharp angles.





Type of Material	Light Reflected	Light Transmitted	Tooth Stump Effect
Feldspatic ceramic	Low	High	High
Lucite reinforced	Low	High	High
Lithium disilicate	High	High	Medium low
Zirconia	High	Low	Low
Metal	High	Low	No effect

The Law of the Face of Tooth

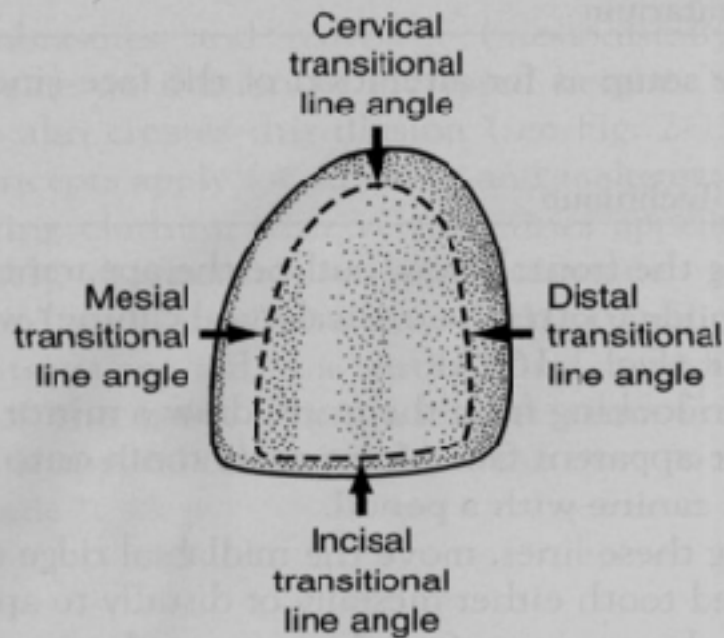
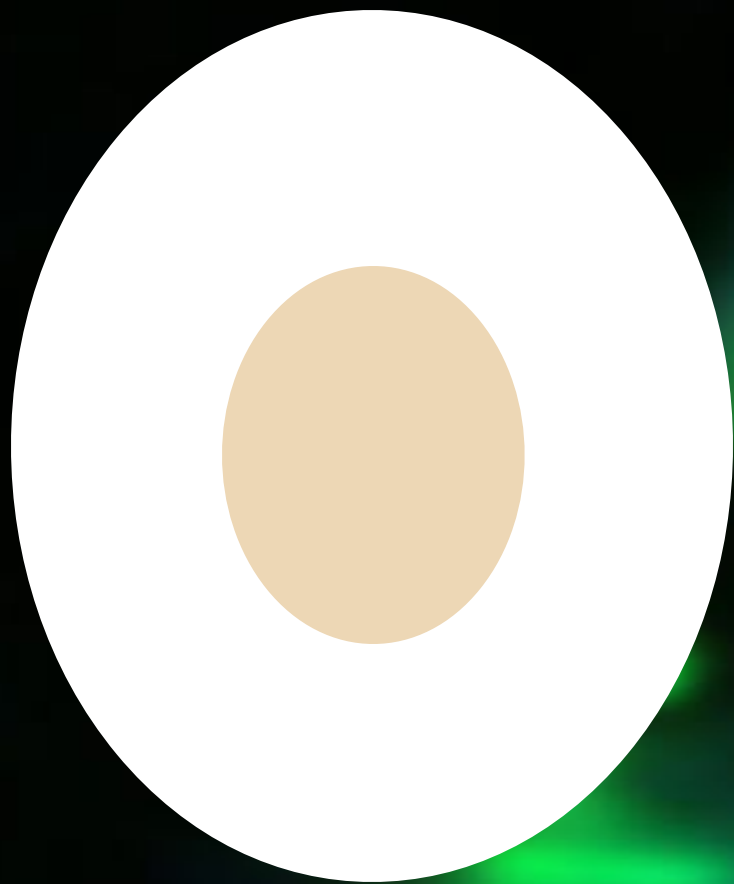


Fig. 2-11. The face of the tooth is bound by the transitional line angles.

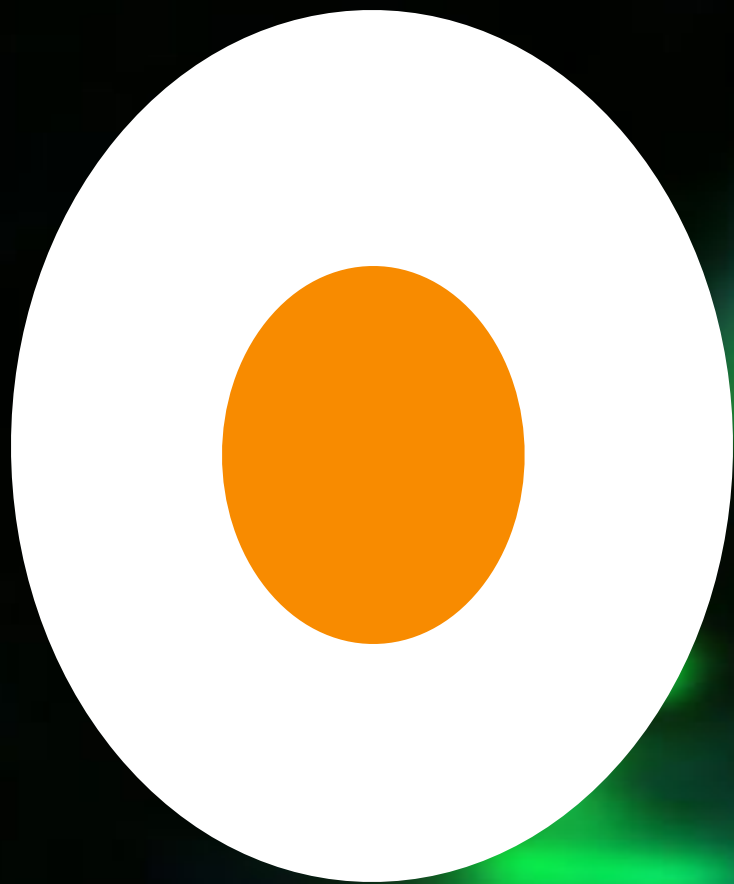
Fig. 2-11. The face of the tooth is bound by the transitional line angles.

- *In order to make dissimilar teeth appear similar the apparent faces should be equal*
- *Equal faces can be created by shaping the lab. Surface to reposition the transitional line angles*

Back Ground Effect



Back Ground Effect

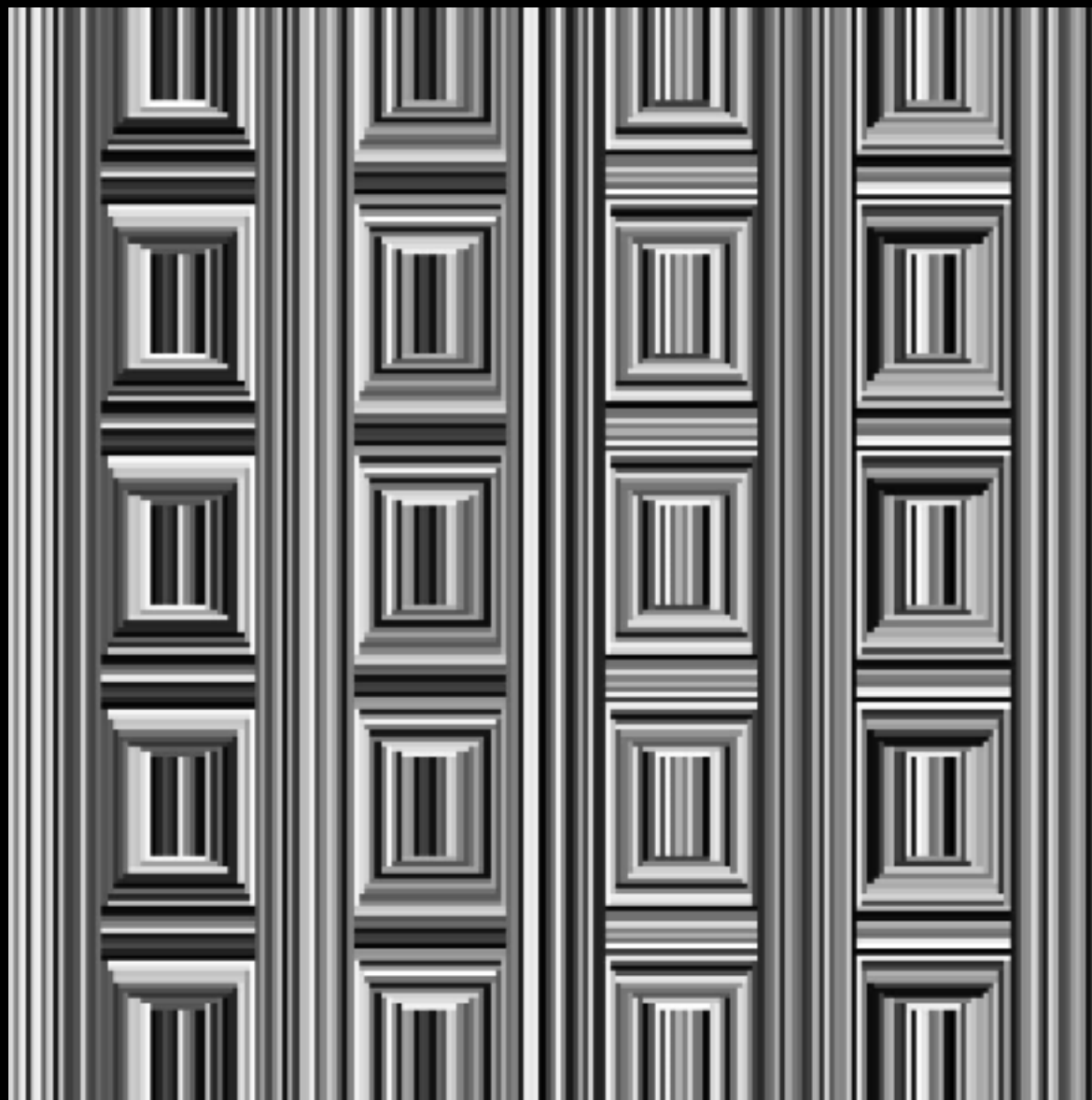




The sex illusion

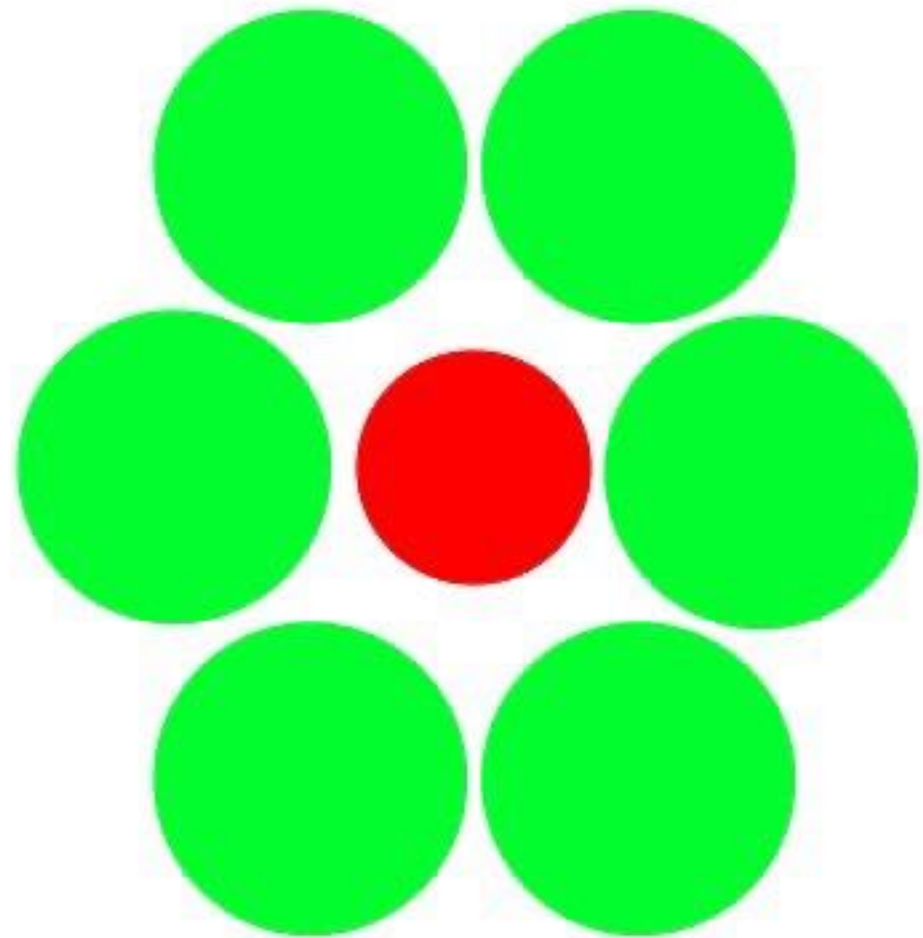
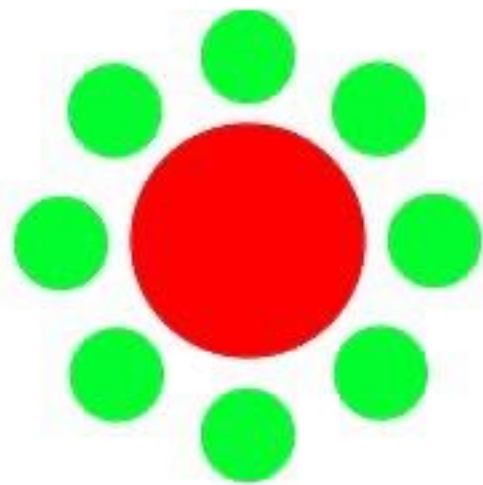


The Coffer illusion



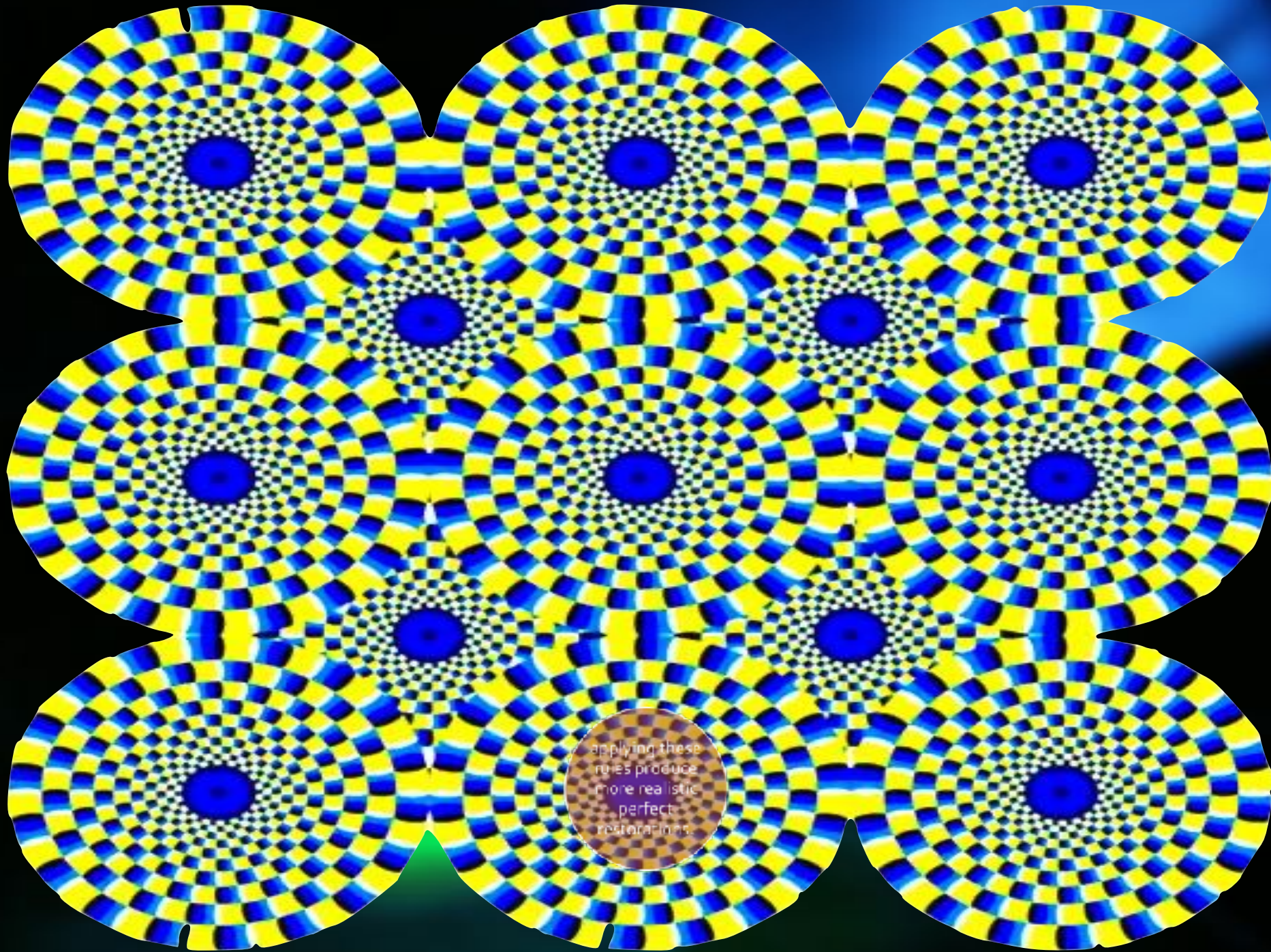
The mask of love











applying these
rules produce
more realistic
perfect
restorations

اطلس آموزشتن قدم به قدم

پرسلن لامینیت ونیر

مترجمین :

دکتر سعید نعمتی انارکی

متخصص دندانپزشکی ترمیمی و زیبایی
عضو هیئت علمی دانشکده دندانپزشکی دانشگاه آزاد اسلامی

دکتر مهتا فضل یاب

A hand holding a glowing green pen against a blue background. The pen is illuminated with a bright green light, and the hand is partially visible in the upper right corner. The background is a solid blue color.

**THANK YOU
FOR YOUR
ATTENTION**

Any question?



