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CHAINSAW
CARVING

By Kevin Treat



Eye Protection for Chainsaw Carvers

Kevin Treat
“The Sawptician”



Topics

- Human Physical Senses
- Factors Comprising Human Senses
- Identification of Safety Eyewear
- Safety Frame Designs
- Lens Materials
- Lens Designs
- Lens Treatments

Human Physical Senses

Touch, Smell, Taste, Hearing and....Vision

Two senses especially stimulated by chainsaw sculpting

- Vision and Touch

Goal in carving is to capture and convey the aesthetic value of the sculpture for the enjoyment of all observers

We are going to produce what we are able to see

Therefore, its imperative that we take all measures in preserving our senses, vision and touch

This is going to result in:

-comfort and maintaining health of the eye

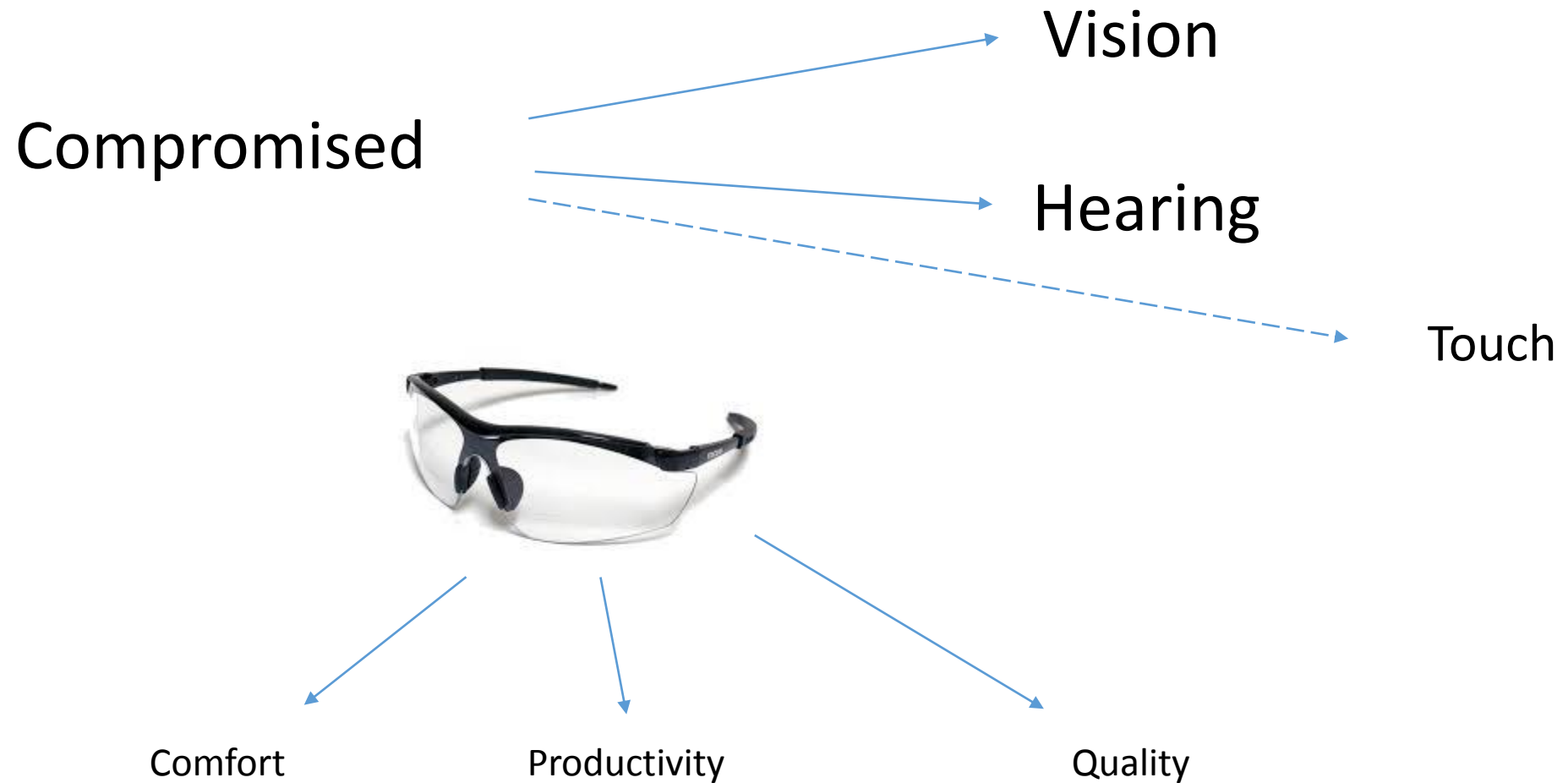
-higher productivity

-quality



Factors Comprising Human Senses

Vision and Hearing



Identification of Safety Eyewear

Is all eyewear **safety** eyewear?

- Your regular dress eyewear? (no)
- Your side shields on dress eyewear? (No)
- Your regular sunwear? (No)
- Your drugstore reading glasses? (No)
- ... and certainly not contact lenses

OSHA requires all safety eyewear to be American National Standards Institute certified as identified with "Z-87" stamped on the temple and/or lens

Safety Frame Designs

Comparing Frames of Regular Dress Eyewear and Safety Eyewear



Regular Dress Eyewear
Lens Profile is 90 degrees

Safety Eyewear
Lens Profile is 160 degrees

*Safety Eyewear
is affording
40% more
protection than
dress eyewear
as it protects
peripheral
vision zones*

Safety Frame Materials

- Zyl (plastic)



- Metal



- Combination



Frame Materials- Pros and Cons

Metal frames:

- transmit the ambient temperature to your skin
 - hot in the summer and cold in the winter
- electrical shock hazard
- have more moving parts (nose pads & screws)

Plastics frames:

- have fewer moving parts
- are good insulators against temperature and shock
- are subject to cracking with cold; stretching with warm temperatures

Lens Materials



Glass

- affords optimum optical clarity (used in premium quality devices)
- highly scratch resistant
- susceptible to spontaneous shattering
- costly

Plastic

- satisfactory optical quality
- highly available in any lens designs
- commonly produced and offered to consumer

Polycarbonate

- least optical quality, but
- most impact resistant due to material flexibility
- moderately available and in between cost of glass and plastic
- compromised by solvents

Modern Hybrid Materials

- newly available on the market
- developed to give better optical clarity than polycarbonate

Lens Designs... if not Plano

-Single Vision Lenses

Provide functional vision at one focal point.

Most common single vision lens configurations accommodate near (NVO-near vision only), distance (DVO-distance vision only), or intermediate visual deficits.

Although single vision Rx alternatives offer good utility for a single task, they also involve a significant frequency of eyewear placement and removal. This may involve one or more pairs of eyewear when changing from visual activity involving different working distances.



Lens Designs-

Bifocal Lenses

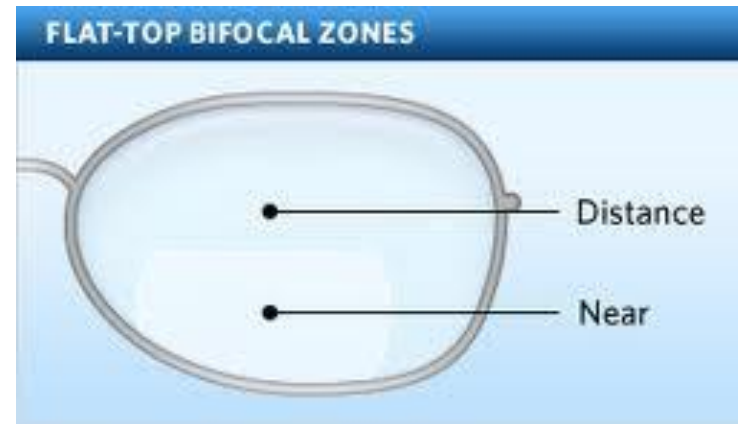
Offer two distinct focal areas in one lens (beyond 10 ft and 14-16 inches)

Provides an alternative to carrying two separate pairs of eyewear.

Most bifocal lens configurations include distance vision in the top portion and near vision in a bottom segment

Bifocal lenses are the most noticeable lens styles as evidenced by a line between focal areas.

Bifocal RX configurations do not usually afford clear intermediate vision and therefore require a combination of head, hand, and body movement to reposition material at intermediate distances to a near (14-16 inches) focal point.



Not recommended for Chainsaw Sculpting because the time to transition focus is about 5 seconds!

Lens Designs- Progressive Lenses

Also known as Progressive Add Lenses or PAL's)

Afford functional vision at all focal points (distance, intermediate, and near) with modern optical technology.

Unlike lined bifocal and trifocal lens designs, progressive no-line lenses eliminate additional arm and body movement required to position material at the most appropriate focal point.

Progressive lenses also offer the most natural vision between focal areas as the eye recognize a gradual increase in lens power instead of a sudden change.



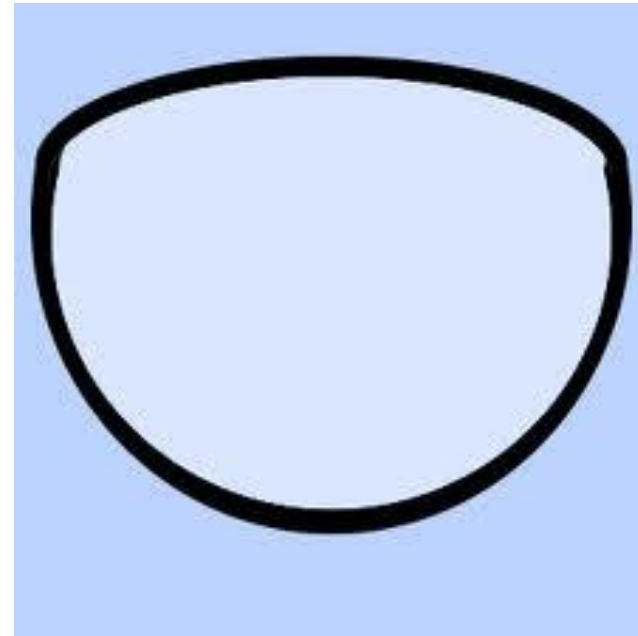
Not recommended for Chainsaw Sculpting because peripheral vision is very limited

Lens Design- Task Lenses

This alternative enables wearers to recognize maximum optical performance for all tasks within a range of approx. 3-10 feet.

TPL's are an ideal alternative for those who do not usually recognize distance correction and only use glasses for reading.

Task lenses are a single vision lens designed for a specific focal point (task working distance)



Lens Treatments- Polarized Filter

Improves optical performance by eliminating reflected surface glare and harmful Ultra Violet light.

Other clinical benefits include reduced squinting to diminish intraocular pressure, and maintaining the integrity of overall ocular health.

May lose true color when painting and finishing



Transition Convenience Lenses

Automatically darken outdoors and return to clear indoors.

Provides 100% natural Ultra Violet protection.

Available in grey and brown lens colors in single vision, bifocal, and progressive lens styles.



<http://www.youtube.com/watch?v=Op2K7p1peqE>

Lens Tints

- Grey
 - gives true color definition
 - may be too dark in overcast situations
- Brown
 - gives good contrast sensitivity
 - results in minor color distortion
- Yellow
 - for use in low light conditions, only!
 - use in direct sunlight is damaging to the eyes!



Summary

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- Factors Comprising Human Senses
- Identification of Safety Eyewear
- Safety Frame Designs
- Lens Materials
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- Lens Treatments

Kevin Treat “The Sawptician”



As a youngster, Kevin helped his family cut firewood to heat their home for winter. He began woodcarving as a hobby and carved several relief projects. In the process of making these small scale carvings, he began removing the un-needed mass much more quickly with a chainsaw. Then he applied his already known relief wood carving skills to logs began to expand the size and dimension of his carvings. Since then, chainsaw carving has become a means to skillfully exercise his creativity and imagination to produce hundreds of unique wood sculptures.

When not tracking through sawdust or spending time with his wife and children, Kevin works as an independent optician. Kevin, "*The Sawptician*" operates [OPTI-CARE mobile optical service](http://www.mobileopticare.com). He maintains a professional commitment to detail, quality, and value in the eyewear he provides and services. Kevin believes his optician experience has positively impacted his carving skills as he finds similarities in shaping eyeglass frames & lenses with his wood carving projects.

Kevin is an annual participant in several local and regional chainsaw carving competitions and the annual Ridgway International Chainsaw Carvers Rendezvous

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