Sisteme software de prelucrarea imaginilor

Trusa de instrumente

Instrumente de pictare si retusare





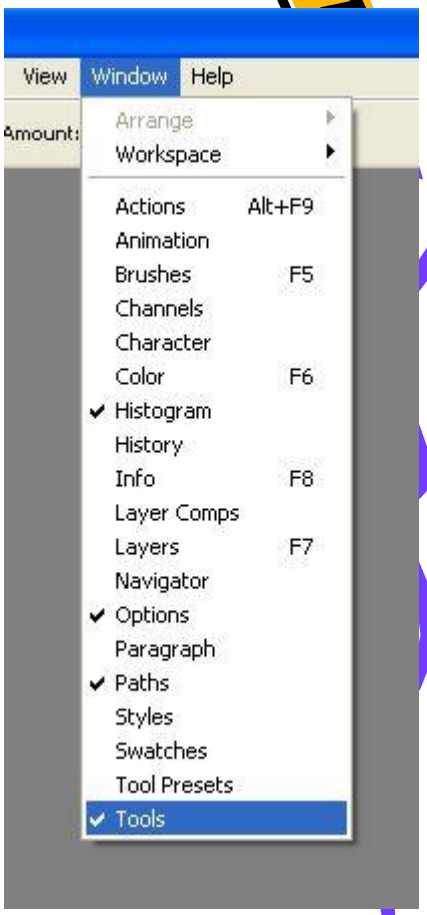
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LAPI

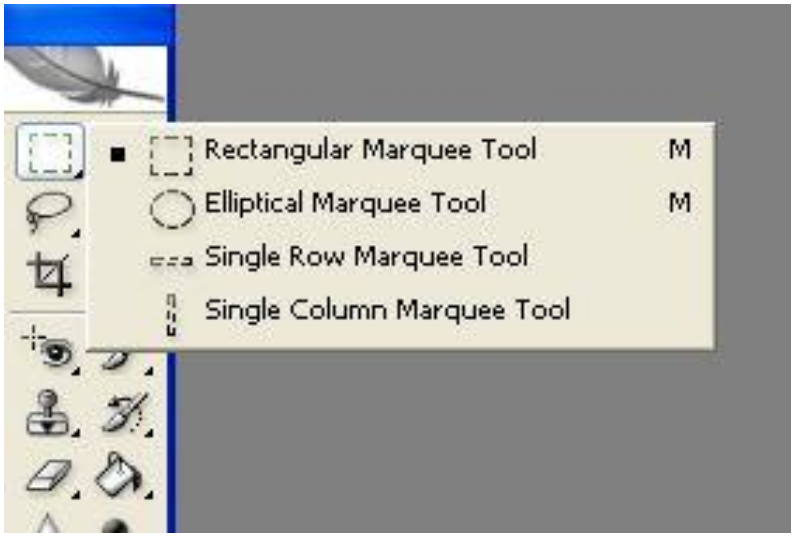
Instrumente
- Photoshop CS2-

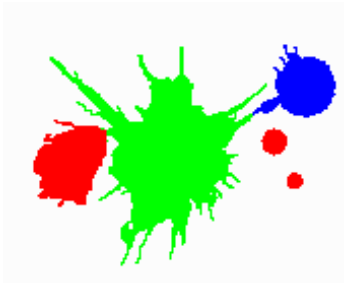
- Devin vizibile daca e selectata optiunea *Tools* din meniul *Window*
- Fiecare instrument are propriile optiuni si setari vizibile daca e setata optiunea *Window->Options*
- Sunt impartite in instrumente de:
  - Selectie, mutare si taiere
  - Pictare si retusare
  - Text si cai (desen)
  - Notite, navigatie, masurare



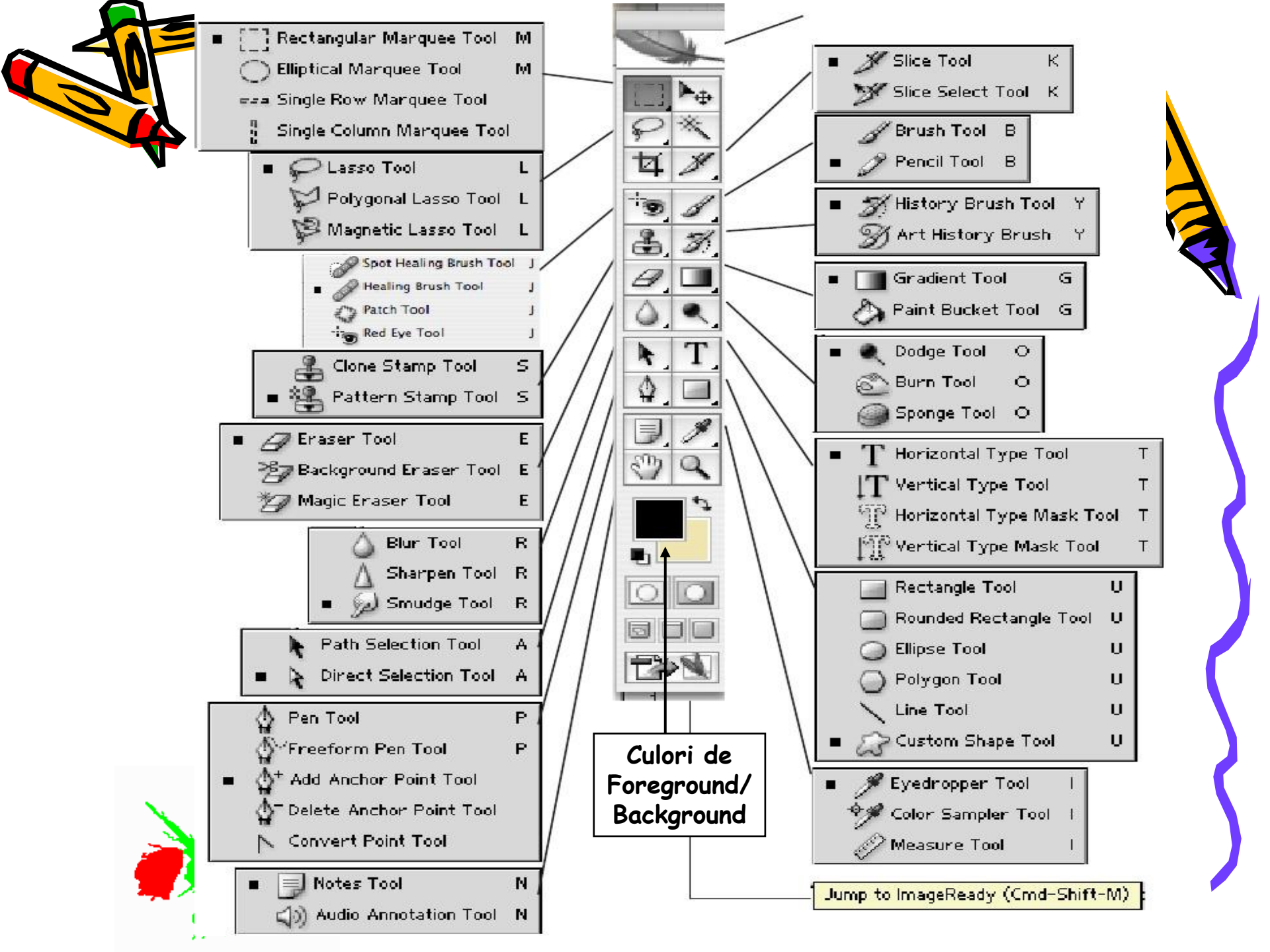
Instrumente
- Photoshop CS2-

- Exista instrumente ascunse sub instrumentele vizibile
  - Acestea au un mic triunghi in partea dreapta jos a instrumentului si apar daca se face *click-dreapta* pe ele





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Rectangular Marquee Tool M
Elliptical Marquee Tool M
Single Row Marquee Tool
Single Column Marquee Tool
Lasso Tool L
Polygonal Lasso Tool L
Magnetic Lasso Tool L
Spot Healing Brush Tool J
Healing Brush Tool J
Patch Tool J
Red Eye Tool J
Clone Stamp Tool S
Pattern Stamp Tool S
Eraser Tool E
Background Eraser Tool E
Magic Eraser Tool E
Blur Tool R
Sharpen Tool R
Smudge Tool R
Path Selection Tool A
Direct Selection Tool A
Pen Tool P
Freeform Pen Tool P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool
Notes Tool N
Audio Annotation Tool N
Slice Tool K
Slice Select Tool K
Brush Tool B
Pencil Tool B
History Brush Tool Y
Art History Brush Y
Gradient Tool G
Paint Bucket Tool G
Dodge Tool O
Burn Tool O
Sponge Tool O
Horizontal Type Tool T
Vertical Type Tool T
Horizontal Type Mask Tool T
Vertical Type Mask Tool T
Rectangle Tool U
Rounded Rectangle Tool U
Ellipse Tool U
Polygon Tool U
Line Tool U
Custom Shape Tool U
Eyedropper Tool I
Color Sampler Tool I
Measure Tool I
Culori de Foreground/ Background
Jump to ImageReady (Cmd-Shift-M)

Instrumente de pictare si retusare

- **Brush**: deseneaza cu pensula (de diferite forme si ‘tarii’)
- **Pencil**: deseneaza cu creionul linii cu marginile solide
- **Color replacement**: inlocuieste o culoare cu alta specificata pastrand textura

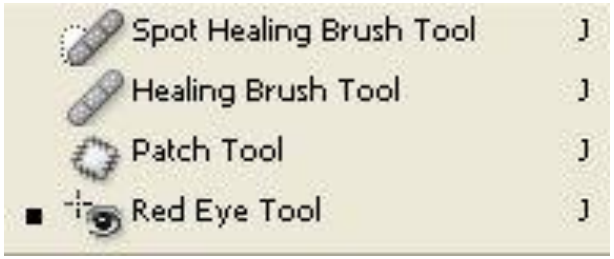


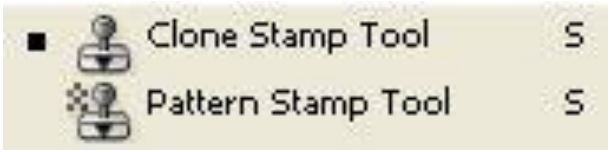


- **Eraser**: sterge pixelii, in locul acestora ramanand fundalul
- **Bacground eraser**: sterge pixelii, in loc ramanand zona transparenta
- **Magic eraser**: sterge zone cu culoare solida

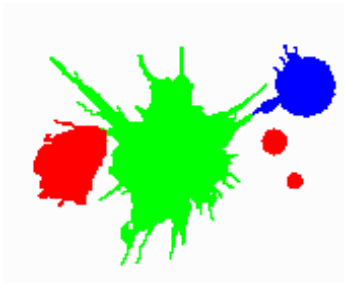
Instrumente de pictare si retusare

- **Spot healing brush**: indeparteaza defecte sau obiecte nedorite.
- **Healing brush**: picteaza dupa o monstra sau o textura si ajuta la inlaturarea imperfectiunilor din imagini.
- **Patch tool**: repara imperfectiuni intr-o zona selectata din imagine folosind o mostra sau o textura.
- **Red eye remover**





- **Clone stamp**: copiaza dintr-un loc specificat
- **Pattern clone stamp**: pictează cu o parte din imagine ca tipar.

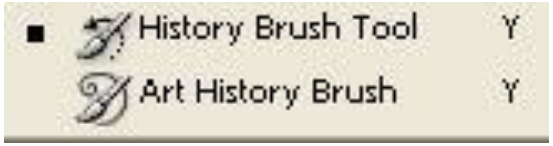


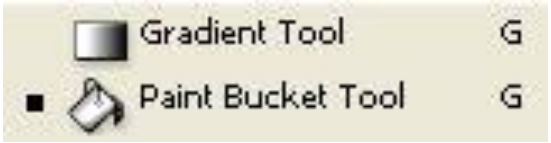
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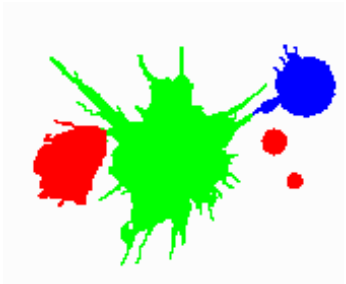
Instrumente de pictare si retusare

- **History brush**: picteaza o copie a unei stari din *history* pe imagine.
- **Art history brush**: picteaza cu modele stilizate simuland pictura adevarata, folosind o stare selectata din *history*.



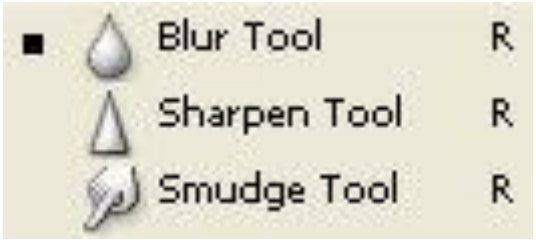


- **Gradient**: creaza combinatii liniare intre mai multe culori
- **Paint Bucket**: umple zone colorate similar cu culoarea din fundal.



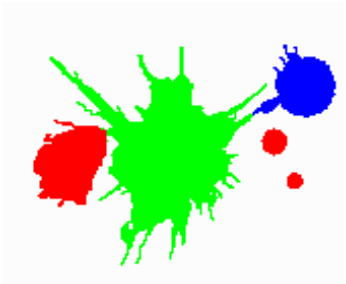
Instrumente de pictare si retusare

- **Blur**: incetoseaza
- **Sharpen**: accentueaza contrastul
- **Smudge**: ‘mazgaleste’



- **Dodge**: luminează
- **Burn**: innegreşte
- **Sponge**: schimba saturaţia





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Instrumentul *Brush* in Photoshop CS2



- **Pensula**

- Instrument pentru pictare
- Se pot alege forme si dimensiuni presetate
- Se poate salva pensula actuala pentru a fi folosita ulterior

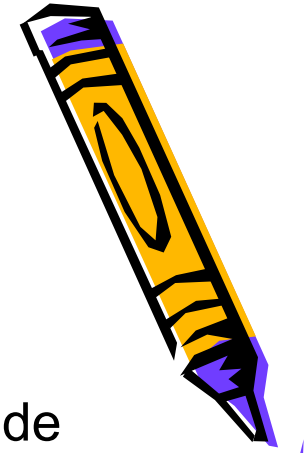


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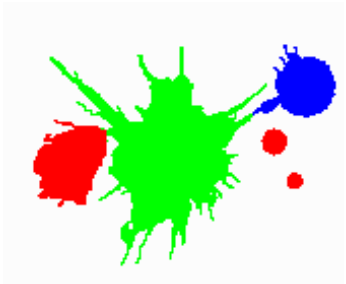


Instrumentul *Brush* in Photoshop CS2

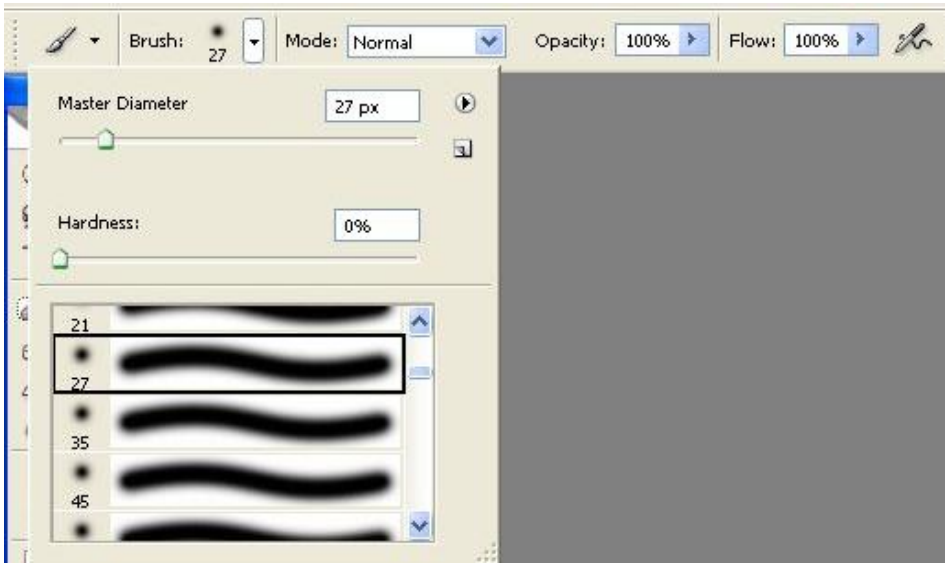




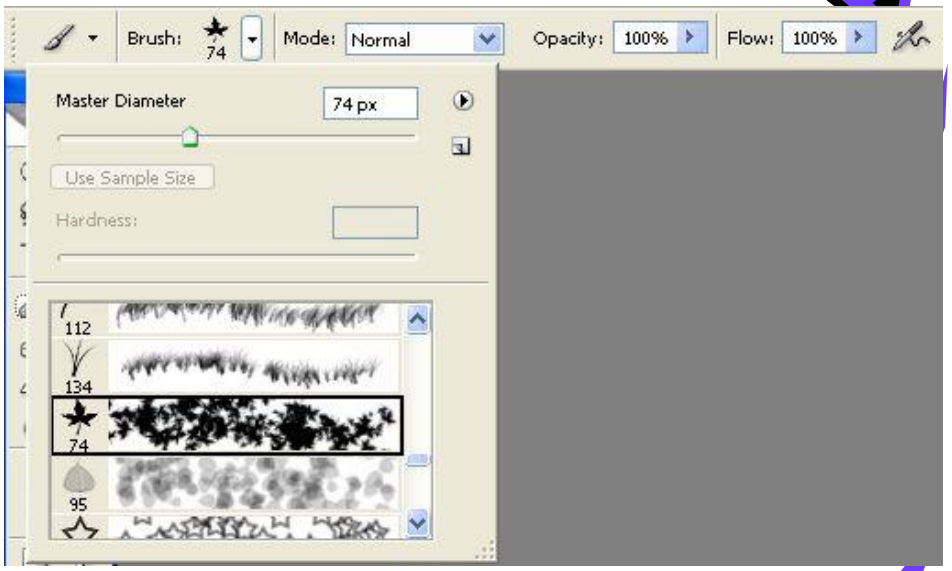
- ‘Pensula’ este folosita si la alte instrumente cum ar fi cele de stergere, de copiere, de mazgalire, de modificare a luminozitatii si a saturatiei, de blurare, de contrastare, etc.
- Forma pensulei e data de o harta de pixeli care defineste cum va arata urma lasata de pensula la o singura atingere a zonei de pictare.
- Daca se picteaza tinand butonul mouse-ului apasat atunci urma lasata de pensula va fi alcatuita prin copierea formei pensulei de-a lungul traiectoriei cursorului intr-un mod specificat de caracteristicile pensulei.



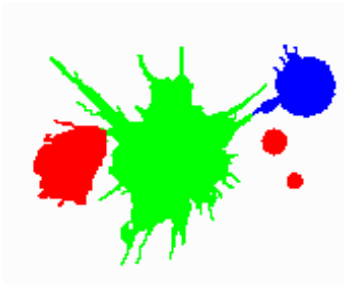
Instrumentul *Brush* in Photoshop CS2



Pensule standard rotunde
(cu margini ‘dure’ sau blurate gradat)



Pensule cu forma specificata
(nu se poate specifica gradul de blurare al marginilor)



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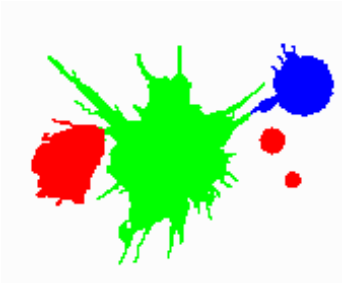


Instrumentul *Brush* in Photoshop CS2



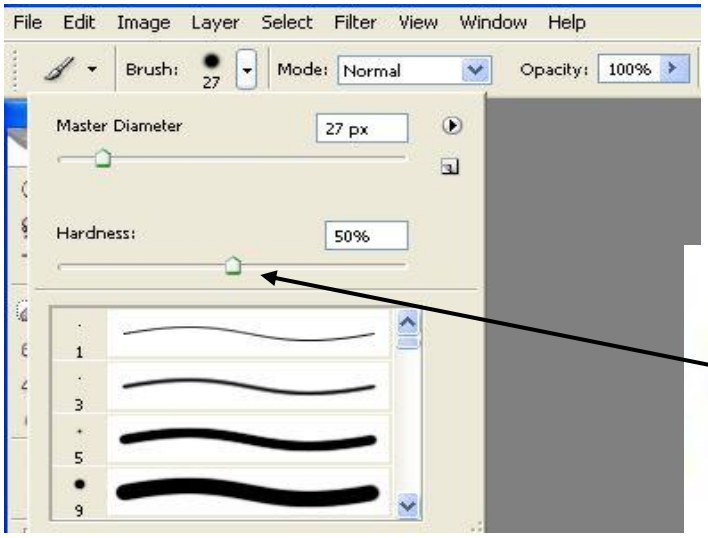


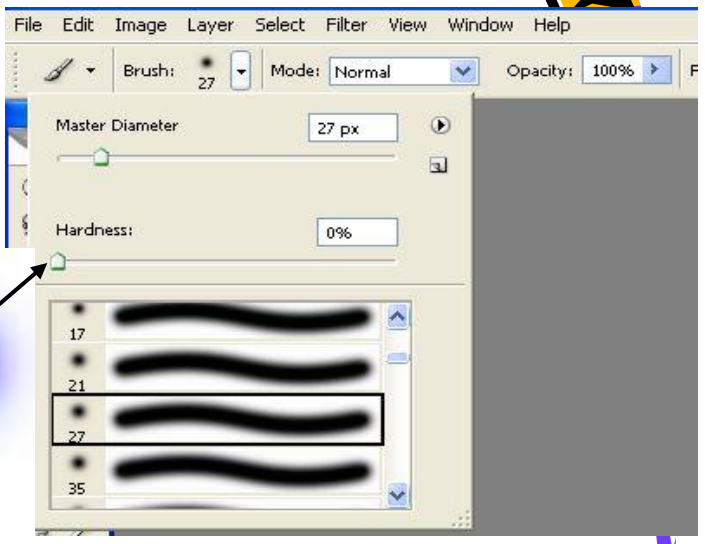
- *Modes*: alege modul de combinare cu fundalul (despre aceste moduri vom discuta mai pe larg la capitolul *Layers*)
- *Opacity*: alege opacitatea (transparenta)
- *Flow*: alege cata ‘cerneala’ sa se puna la un moment dat
- Optiunea *Airbrush*: cat timp este apasat butonul mouse-ului, pensula adauga cerneala cu o viteza data de valoarea de la *Flow,* dar limitata de valoarea de la *Opacity*

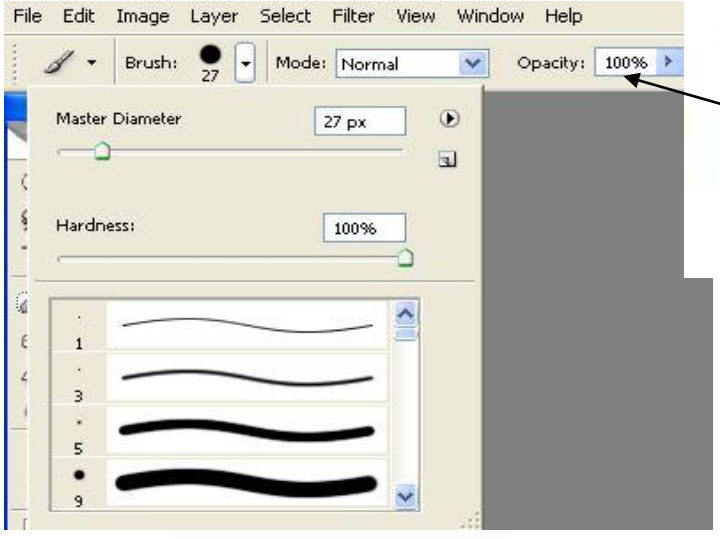


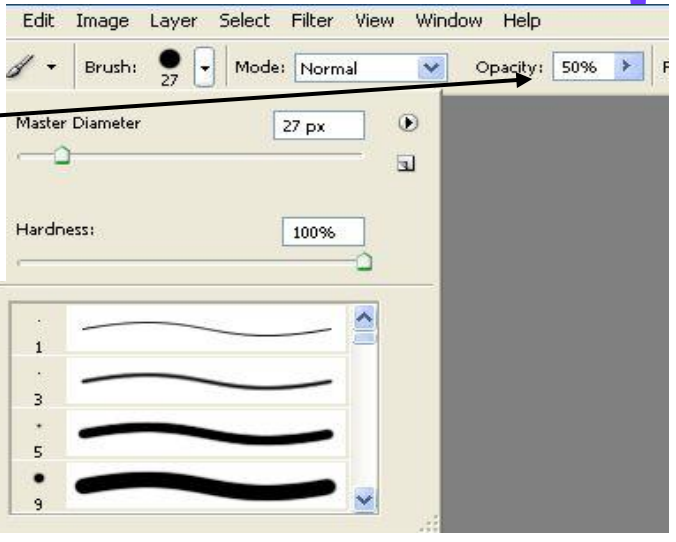
Brush

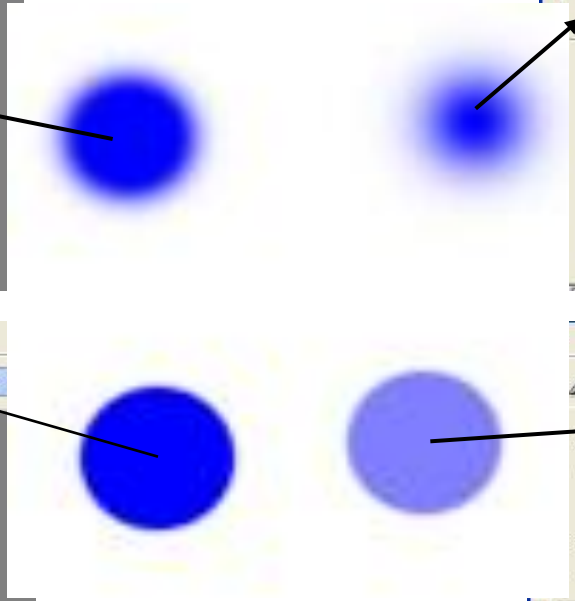
Hardness vs Opacity











Software de Prelucr

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Brush

Opacity vs Flow

Opacity: 50%

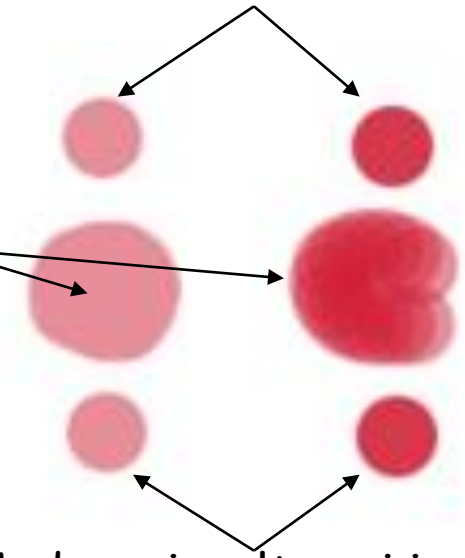
Flow: 100%

Opacity: 100%

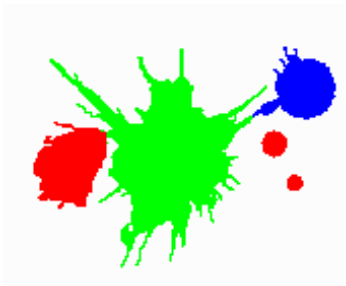
Flow: 50%

Click o singura data

Desenare fara
a ridica butonul
mouse-ului

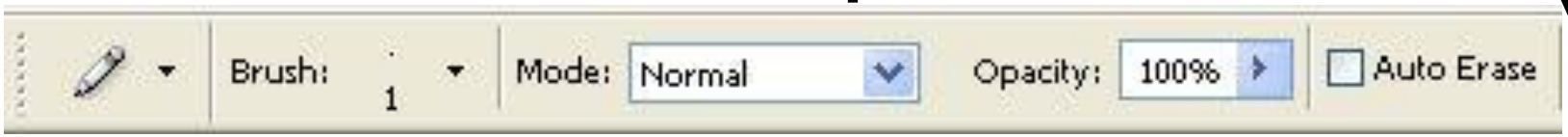


Click de mai multe ori in acelasi loc



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Instrumentul *Pencil* in Photoshop CS2

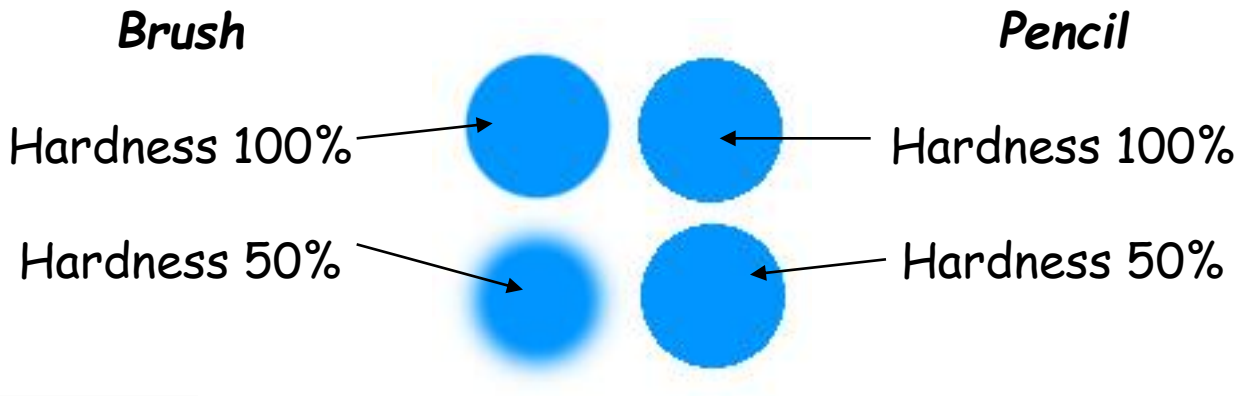


- Cateva optiuni similare cu cele de la *Brush*: mod, opacitate, diametru, forme

- *Auto Erase*: va picta cu culoarea de fundal (background) daca zona pe care incep pictarea are deja culoarea de prim-plan (foreground).

Pencil vs *Brush*

- *Pencil* poate picta numai cu margini dure.
- *Brush* poate picta numai cu margini ‘moi’ (blurate). Chiar daca se selecteaza *Hardness* la 100% marginile tot vor fi un pic blurate.





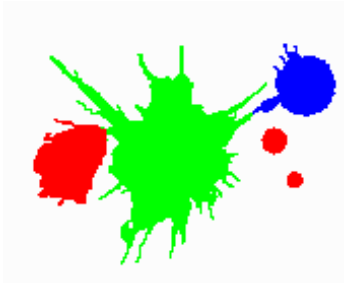
Exercitiu



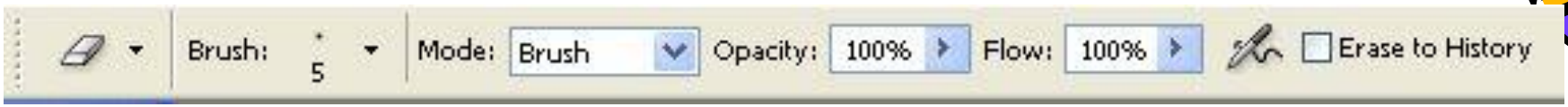
Fie imaginile *01start.bmp si 01Start_1.bmp*.

Modificati creativ aceste imagini cu ajutorul instrumentelor **Brush** si **Pencil**.

Urmariti modul in care afecteaza *optiunile* instrumentelor urma lasata.



Instrumentul *Eraser* in Photoshop CS2

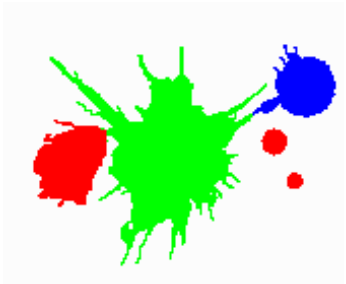


- Sterge pixelii ramanand culoarea de fundal (picteaza cu culoarea Background)
- Are aproape aceleasi optiuni ca si instrumentul *Brush*
- *Erase to History*: sterge pixelii ramanand starea selectata din paleta *History*

Exercitiu

- Fie imaginile *01start.bmp si 01Start_1.bmp*.

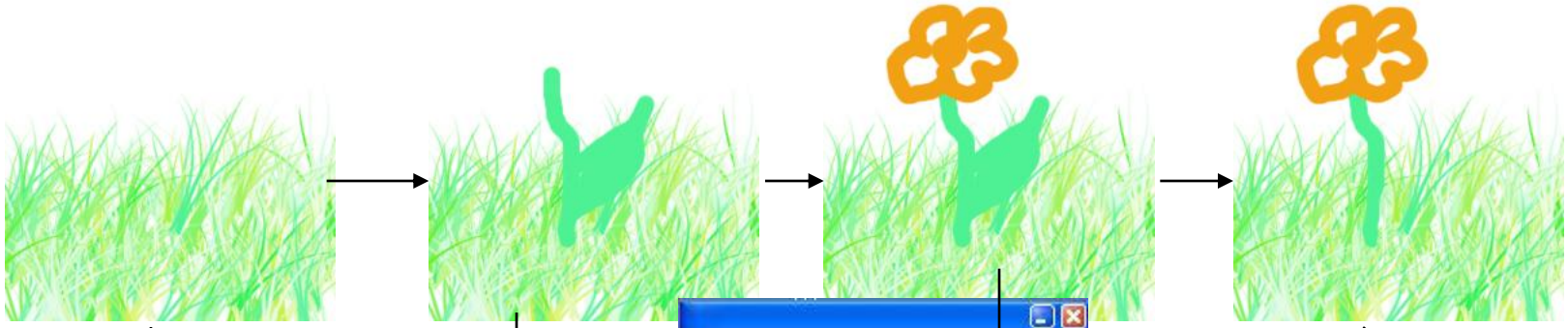
  Folosind instrumentul **Erase** incercati sa ajungeti la un efect asemanator cu cele din *01end.bmp, 01End_1.bmp, 01End_2.bmp*.



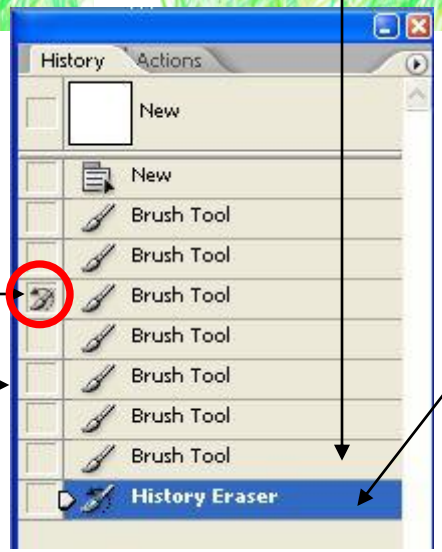
Eraser

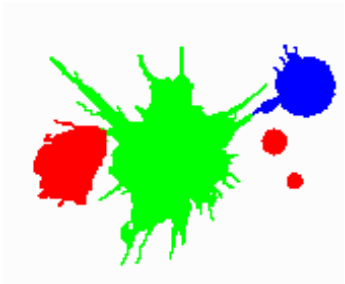


Erase to History



Momentul
la care aleg
sa ma intorc





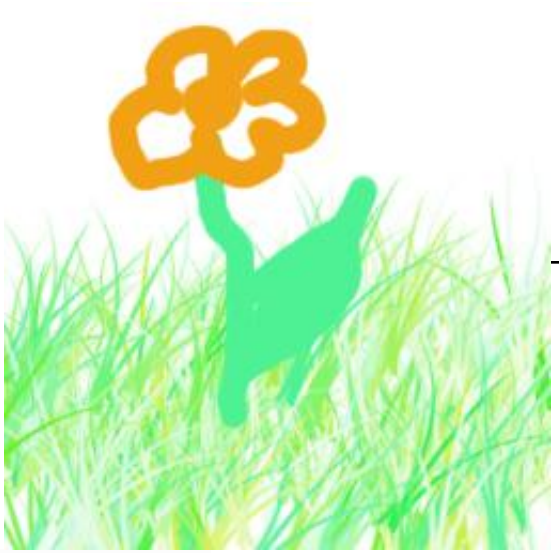
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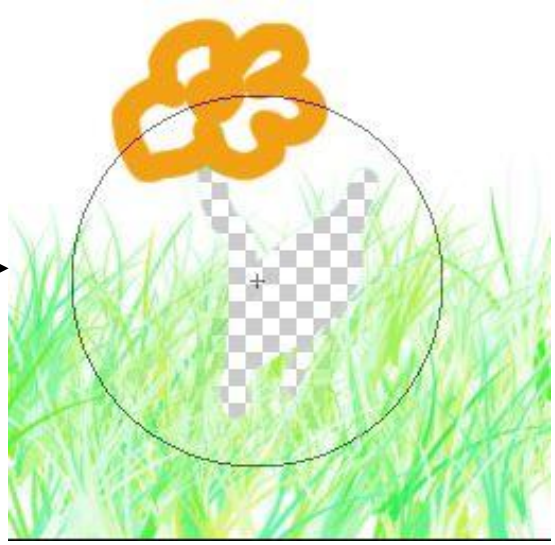
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Background Eraser



- Sterge culorile care sunt selectate atunci cand instrumentul trece pe deasupra lor. Lasa in urma zona transparenta.





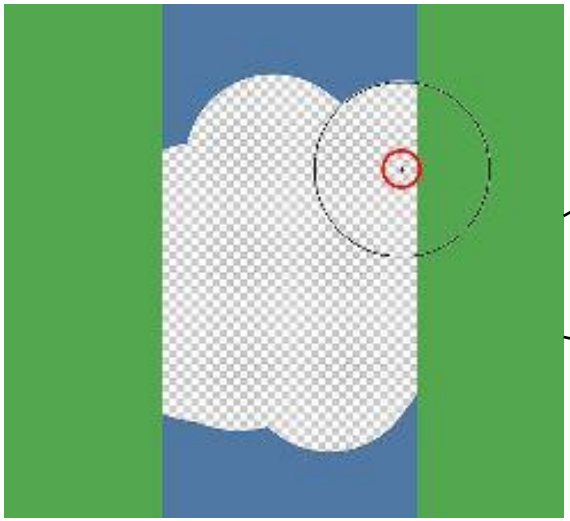


Background Eraser

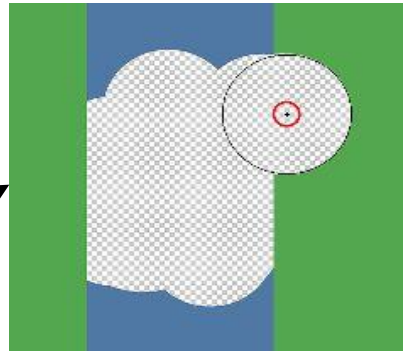


- *Optiuni de selectare*: continuu, o singura data sau culoarea de background
- *Limite*: unde sa caut pixelii pe care ii sterg
  - *Continuu*: numai pixeli care ating pixelul curent
  - *Discontinuu*: orice pixel care este de culoare selectata
- *Toleranta*: cat de mult are voie culoarea pixelului sters sa difere de culoarea selectata
- *Protect Foreground Color*: nu sterge culoarea selectata ca *Foreground* chiar daca e in interiorul tolerantei

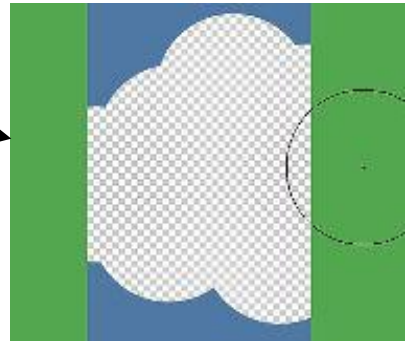
Background Eraser
- metode de selectare -



BkgEraser_ex0.gif

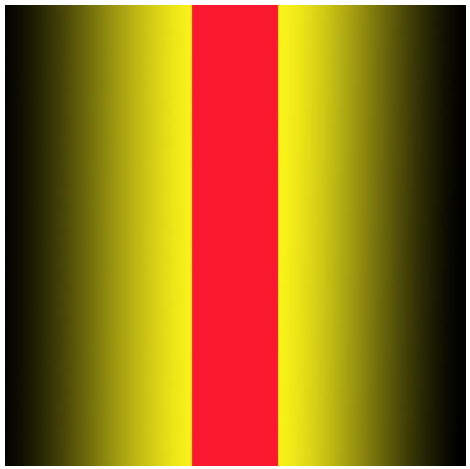


Continuu

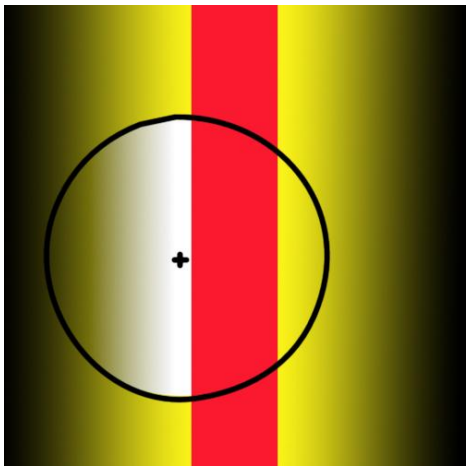


O singura data

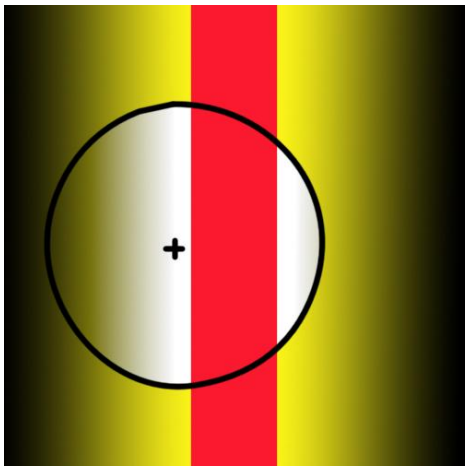
Background Eraser
- limite -



Original
BkgEraser_ex1.jpg



Un click cu *Limits*
pe *continuu*



Un click cu *Limits*
pe *discontinuu*

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Background Eraser
- limite -



Continuu



Discontinuu

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Background Eraser
- toleranta -



Toleranta 50%



Toleranta 70%

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Magic Eraser



- Stergere cu **un singur click** a culorii selectate
- *Toleranta*: cat de mult are voie culoarea pixelului sters sa difere de culoarea selectata
- *Continuu*: numai pixeli care ating pixelul curent
- *Discontinuu*: orice pixel care este de culoare selectata
- *Anti-alias*: blureaza marginile zonei sterse

Color Replacement



- Cel mai simplu mod de a schimba culoarea unei zone
- *Optiuni de selectare*: continuu, o singura data sau culoarea de background
- *Limite*: unde sa caut pixelii pe care ii sterg
  - *Continuu*: numai pixeli care ating pixelul curent
  - *Discontinuu*: orice pixel care este de culoare selectata
- *Toleranta*: cat de mult are voie culoarea pixelului sters sa difere de culoarea selectata

- Obs: optiunile seamana cu cele de la *Background Eraser*

Color Replacement



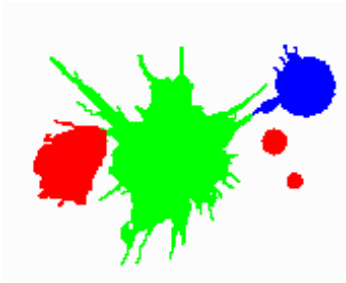
- **Moduri:**
  - **Hue:** schimba numai nuanta, nu si saturatia sau intensitatea. E folositor pentru schimbari de coloare subtile, in special in imagini in care culorile nu sunt foarte intense.
  - **Saturation:** schimba numai saturatia. Util pentru a reduce/mari intensitatea culorii sau chiar a desatura complet culoarea.
  - **Color:** schimba nuanta si saturatia.
  - **Luminosity:** schimba numai luminozitatea

Color Replacement
- exemplu -





Folosirea unei culori din imagine si a modului *Color* pentru modificarea culorii unei zone din imagine (ClrRepl_ex1.jpg)



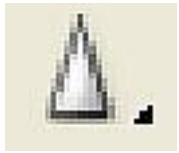
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Color Replacement - exemplu -

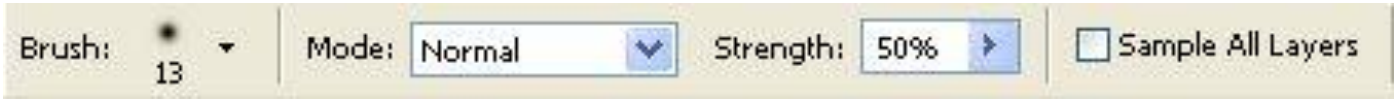




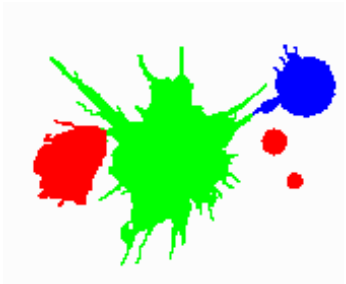
Folosirea modului *Saturation* pentru scaderea saturatiei unor zone din imagine (ClrRepl_ex2.jpg)


Blur, Sharpen, Smudge



- Blureaza / Contrasteaza / Mazgaleste
- **Moduri:**
  - Normal, Darken, Lighten, Hue, Saturation, Color, Luminosity



Blur



- Creaza un efect de incetosare
- Micsoreaza contrastul dintre pixelii adiacenti
- Se poate folosi pentru estomparea ridurilor si cosurilor sau pistruilor (pe modul *lighten*)





Sharpen



- Mareste contrastul pe zona de pictare
- Nu se foloseste prea des (exista filtrul de Unsharp Mask cu efecte mai bune)
- Se ajunge usor la efecte deranjante (ar trebui tinut *Strength*-ul pe valori mici)
- Utilizari frecvente: accentuari ale elementelor luminoase (highlights), scoatere in evidenta a unui obiect dupa redimensionarea imaginii
- Nu este operatia inversa *blur*-ului

Smudge



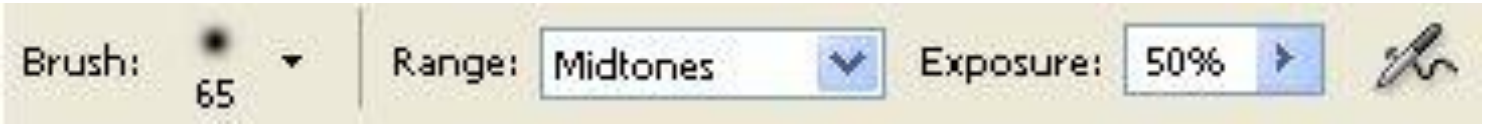
- ‘Mazgaleste’ pixelii ca si cum ar fi vorba de vopsea uda
- Foloseste culoarea care se afla sub cursor la apasarea butonului mouse-ului
- Poate da senzatia de pictura



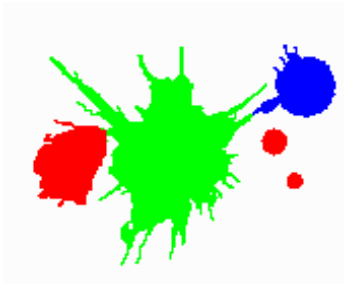




Dodge, Burn, Sponge



- Lumineaza / Intuneca / Modifica saturatia
- **Range** (pentru dodge si burn):
  - Shadows - modifica numai zonele intunecate,
  - Midtones - modifica numai zonele cu luminozitate medie,
  - Highlights - modifica numai zonele luminoase.
- **Exposure:** cat de puternic sa fie efectul





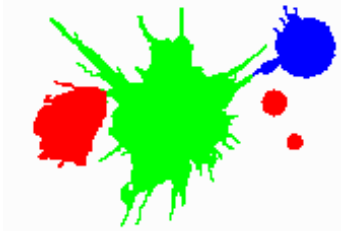


Dodge, Burn









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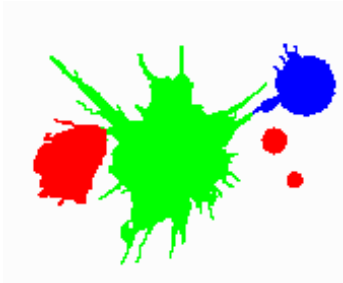


Dodge, Burn









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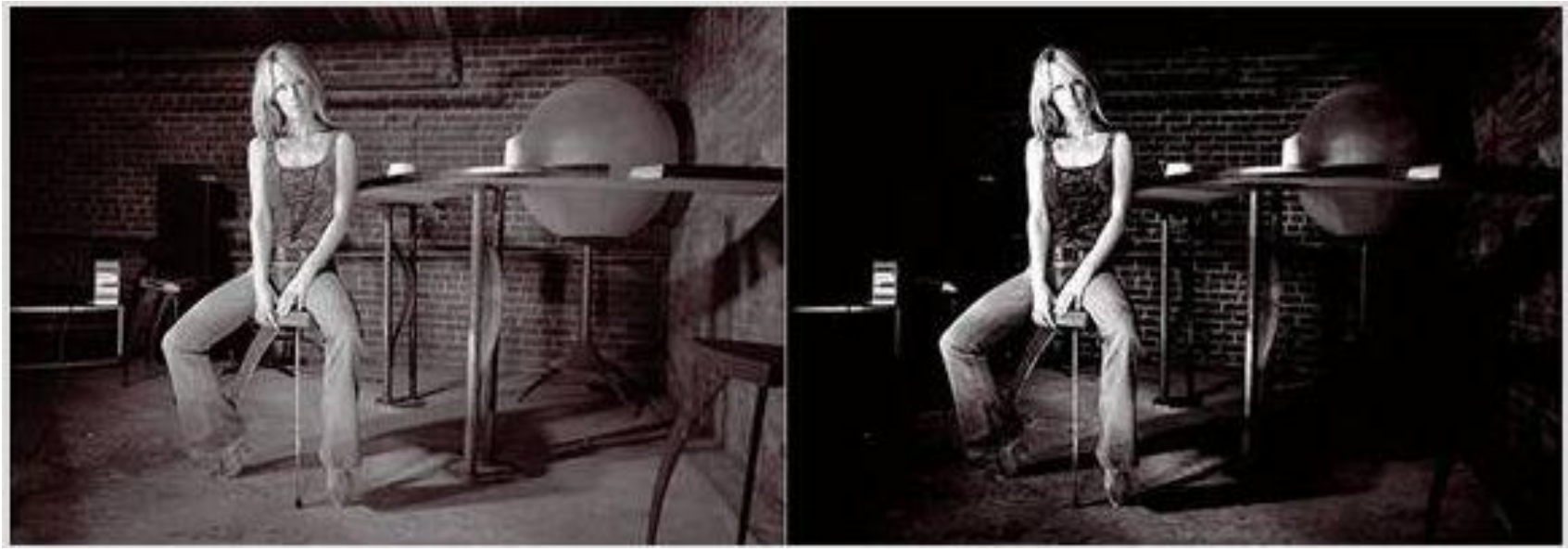


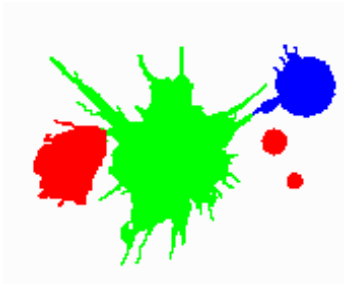


Dodge, Burn









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Spot Healing Brush



- Schimba textura din zona selectata, inlocuind-o cu o alta, fara a schimba culoarea sau luminozitatea zonei initiale.
- Noua textura se alege din zona inconjuratoare zonei selectate
- Utila pentru a elimina mici imperfectiuni in imagine pe zone care nu au detalii foarte fine
- *Proximity match*: selecteaza aleator o textura din zona adiacenta
- *Create texture*: creaza o textura bazata pe zona adiacenta

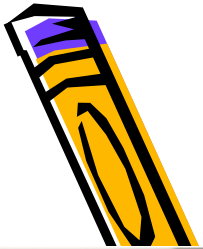




Healing Brush / Patch

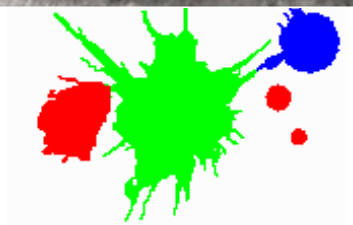
- Schimba textura din zona selectata, inlocuind-o cu o alta, fara a schimba culoarea sau luminozitatea zonei initiale
- Noua textura este aleasa de utilizator prin selectarea unei zone (apasand tasta *Alt*)
- Utile pentru eliminarea de imperfectiuni (pete, zgarieturi, etc)











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Red eye 

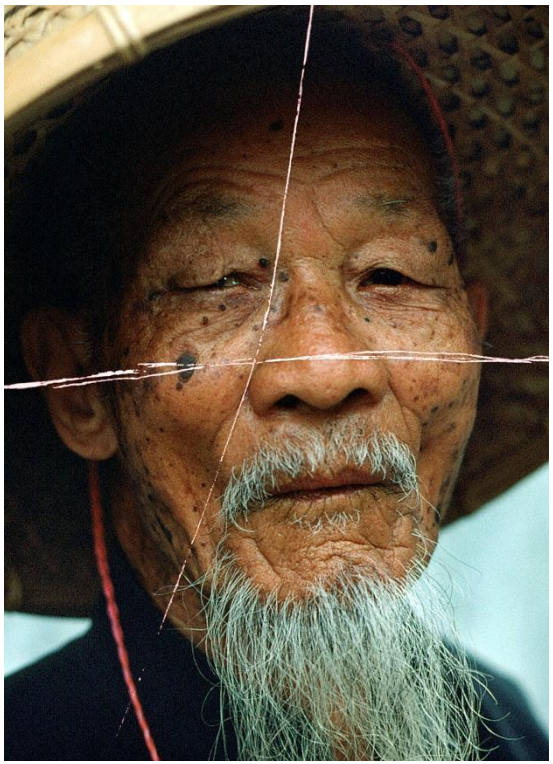
- Ajuta la eliminarea ochilor rosii
- Trebuie precizat unde este ochiul care se vrea corectat
- Cauta in jur zone rosii, le desatureaza si le intuneca

Clone Stamp

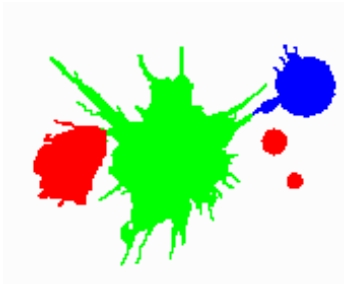


- Copiaza o parte din imagine in alta parte / alta imagine
- Se selecteaza intai un punct de referinta de unde se va copia
- *Aligned:* se va tine cont de translatia cursorului chiar daca butonul mouse-ului nu mai este apasat. Daca aceasta optiune e deselectata se va reveni la punctul de referinta de fiecare data cand butonul mouse-ului nu mai este apasat.
- *Use All Layers:* foloseste informatie din toate layerele vizibile. Daca optiunea nu e selectata, foloseste informatie numai din layerul activ

Retusare
- exemplu -



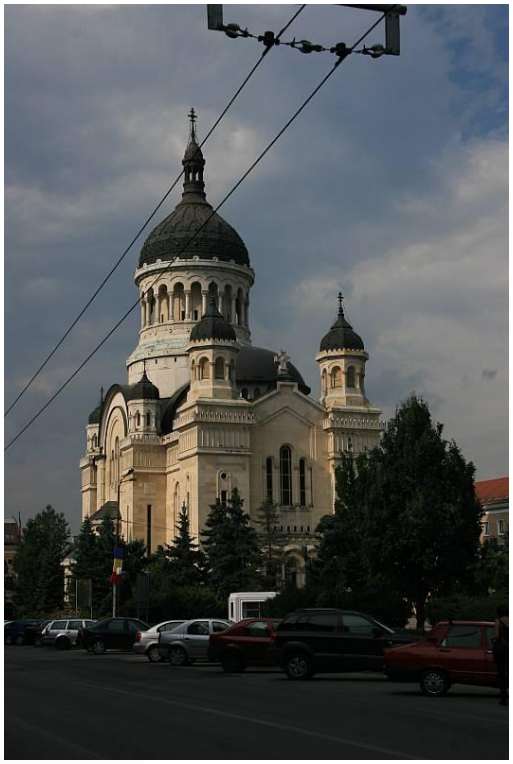


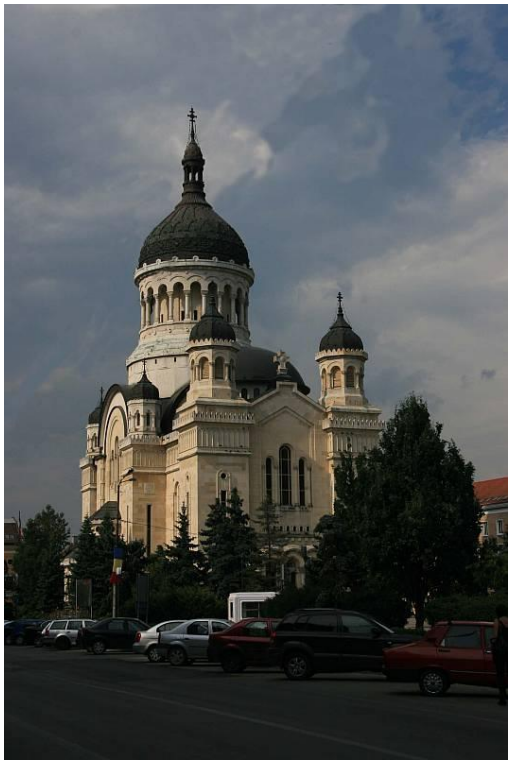


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Retusare
- exemplu -







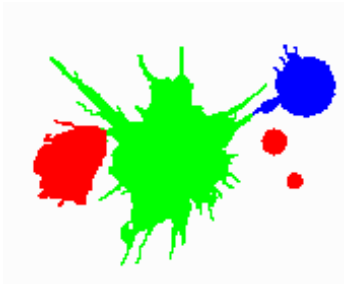
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Pattern Clone Stamp



- Functioneaza similar cu clone stamp
- Inlocuieste zona clonata cu o textura selectata de utilizator



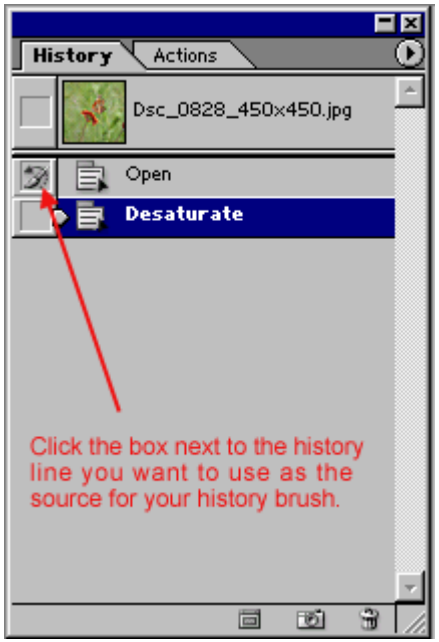
History brush



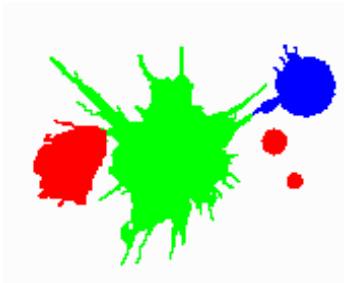
- Permite pictarea cu o stare anterioara
- Similar cu optiunea *Erase to History* de la *Eraser*







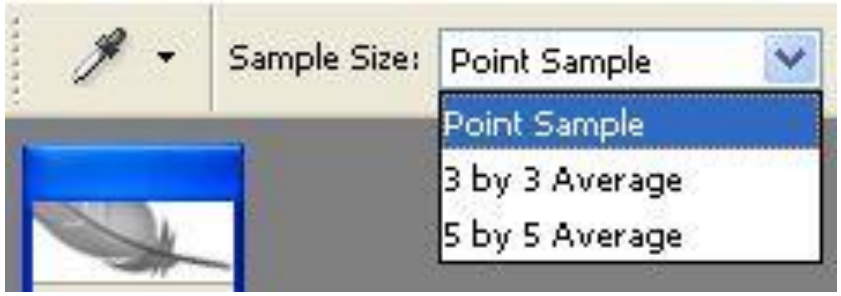




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Eyedropper



- Selecteaza o culoare din imagine si o seteaza ca *foreground*
- Se poate selecta culoarea unui pixel sau media artimetica a culorilor din vecinatatea pixelului



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