The National Institute of Standards and Technology (NIST) facilitated the development of this Footwear and Tire Examination Process Map through a collaboration between the NIST Forensic Science Research Program and the NIST administered Organization of Scientific Area Committees (OSAC) for Forensic Sciences (specifically OSAC’s Footwear and Tire Subcommittee).

This Footwear and Tire Examination Process Map (Current Practice) captures details about the various procedures, methods and decision points most frequently encountered in the discipline of footwear and tire examination from a national perspective and is intended to reflect current practices. The discipline requires examiners to make many decisions that can impact the quality and accuracy of results. The Footwear and Tire Examination Process Map can benefit the discipline by providing a behind-the-scenes perspective into the various components and decision points in the examination process.

Process mapping is the visual representation of the critical steps and decision points of a process. Components of the process are deconstructed, placed into specific shapes within a flowchart and connected by one-way arrows to indicate directionality regarding decisions as well as progression throughout the overall process. The shape of each box assists the reader by representing a specific type of activity.

This process map captures the diverse practices of multiple laboratories, with the goal of allowing a footwear and tire examiner to find their process represented in the map. To ensure this, the mapping team avoided creating a map of what should be done (i.e. best practices) and instead attempted to represent all reasonable variations of casework currently performed by footwear and tire examiners. For this reason, it is important to state that the OSAC Footwear and Tire Subcommittee does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.

This map is not intended to be a step-by-step instruction manual outlining minutia, nor is it intended to be so broad that it lacks utility. Rather, judgements were made by the process mapping group as to which steps should be combined and which steps should be divided further. Certain processes represented in the map have a required sequence while other components may vary by examiner or agency. Processes and decisions may also be dictated by agency policy or law.

**Process Map Applications:**

The Footwear and Tire Examination Process Map is intended to be used to help improve efficiencies while reducing errors, highlight gaps where further research or standardization would be beneficial, and assist with training new examiners. It may also be used to develop specific laboratory policies and identify best practices.

**Scope of the Footwear and Tire Examination Process Map:**

The scope of Footwear and Tire Examination Process Map is limited to core processes within the discipline of footwear and tire examination such as the examination of questioned footwear and tire impressions and the comparison of these impressions to known footwear or tires. Several topics are omitted from this map including crime scene collection and intercomparison of questioned impressions. These topics may subsequently be addressed by the process mapping team, an individual laboratory or a standardization committee.
This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
Develop Mental Plan for Evidence Processing:
- Develop approach for evidence analysis
- How to document items through imaging
- Determine whether additional chemical or physical processing or cleaning is needed
- Determine if lifting is required based on items
- Consider all items involved: Cas, gel lift, electrostatic dust lift, lift, whether items are clothing, paper, tile, etc.

2006 - Item Characterization

2004 Cast
2004 Gel Lift
2004 Electrostatic Dust Lift/Stat Lift
2070 Images of Questioned Impressions
2072 Object
2074 Known Print/Trace Images of Known
2074 Known Test Impressions

This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
FROM 2064

- Input: Cast or questioned footwear or tire impression

2004
- Document and describe in case notes PAP
  - What material the cast is made with
  - Number of pieces the cast arrived in
  - General condition upon arrival

2004
- Take images for technical documentation (including condition)

2006
- Do recognize the casting material?
  - Yes
  - No

2008
- Take images PAP

2010
- Does the cast need additional drying time?
  - Yes
  - No

2012
- Does the cast need additional drying time or place under drying lamp?

2014
- Allow for additional drying time or place under drying lamp

2016
- Conduct research?
  - Yes
  - No

2018
- Contact submitter, examiner, or manufacturer or conduct internet search

2020
- Is there information available about the material?
  - Yes
  - No

2024
- Does the casting material meet validation and reliability standards PAP?
  - Yes
  - No

2026
- Conduct additional research?
  - Yes
  - No

2030
- Conduct validation on material

2032
- Note information of material that is unusual or quality issues

2038
- Perform validation study on material

CASTS (1 of 3)

CASTS (2 of 3)

CASTS (3 of 3)

Casting Considerations: Descriptive Information
- Does the size appear appropriate?
- Generation Marks
  - Orientation marks on cast
- Scene Documentation Marks
  - Can cast and photo of same impression be related to one another?
  - Deposition number on cast from scene documentation?
  - Is cast related through documentation to other items of evidence that have been submitted?
  - Are the corresponding casts, lift, photos, impressions labeled as such?

Casting Considerations: Quality and Materials (potential limitations)
- Quality
  - Quality of pour?
  - Fields in cast present?
  - Features of cast that appear to be interferences from the technique or substrate present?
  - Technique and texture
  - How it was poured?
  - Was a spray casting used?
  - Is debris stuck in casting material?
- Materials
  - Was the material been validated?  If so, has the material been tested to ascertain whether the casting material reliably captures size and features accurately with no shrinking after aging plus?
  - Density: Too thick/thin?
This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
4000 - Object: Dry Origin/Non-Porous Substrate (1 of 2)

4022 Are there identifying marks?

4024 Conduct X-ray, CT, or MRI Techniques

4026 Conduct Dust Lift (4014)

4028 Document observations and/or image FAP

4030 Disassemble and process FAP

4032 General Description

- Whether it is footwear or tire
- Directionality (e.g., measure location on item)
- Whether full or partial impression
- Measurements of length and width, and if the area is from the heel arch, or ball (if footwear and it can be determined)
- Appearance of wear, damage, and/or inclusions in impression
- Any additional impressions on item
- Observed Limitations
- Logos/Make/Model
- General description of available design features/patterns
- Substrate and matrix
- Descriptions of any other images and associated evidence (e.g., shirt and/or photos of shirt with impression)

4034 Determine appropriate imaging settings to capture available detail in the impression. (See Imaging Considerations - Taking Images)

4036 Capture images with selected settings

4040 Document with additional imagery

4042 Retain and distribute images FAP

4044 Seek assistance from imaging unit or other source FAP

4046 Ask for assistance?

4048 Go to 4050

4050 Conduct Lift?

4052 Catalog with any existing images?

4054 Are there additional evidence items in process?

4056 Catalog with any existing images?

4058 Is the impression intact?

4060 Disassemble and process FAP

4062 Are there issues with light source to consider?

4064 Is background included?

4066 Determine optimal lighting based on the following:

- Lighting
- Are there any 3D elements to the impression?
- Are there any issues with light source to consider?
- Are there any background elements to consider?
- Is the impression intact?
- Is the surface intact (e.g., glass)?
- Is there any background information to consider?

Imaging Considerations (Taking Images)

- Preparation
  - Grasp (make sure this is present)
  - Appropriate postural (e.g., locate any others)
  - Posture
  - Camera settings
  - Filter(s) used (frame)
  - Lighting
  - Use a lighting FAP (e.g., use a consistent or intense light source, transmitted, added, or reflective light)
  - Formatting
  - Stable format needed
  - HDR, RAW
  - Sensitivity present (e.g., L, R, a, b, c, d, e, and any agency-specific labels)
- No distortion
- Identity and account for processes of multiple impressions
- Note that if there has been any processing prior to imaging (e.g., note for any warmed surface, proximity of camera to imager, etc.)
- Contrast
- Shutter speed
- Camera position (e.g., lens parallel to substrate)

4018 Does the image capture the available detail?

4020 Return images?

4022 Are there identifying marks?

4024 Conduct X-ray, CT, or MRI Techniques

4026 Conduct Dust Lift (4014)

4028 Document observations and/or image FAP

4030 Disassemble and process FAP

4032 General Description

- Whether it is footwear or tire
- Directionality (e.g., measure location on item)
- Whether full or partial impression
- Measurements of length and width, and if the area is from the heel arch, or ball (if footwear and it can be determined)
- Appearance of wear, damage, and/or inclusions in impression
- Any additional impressions on item
- Observed Limitations
- Logos/Make/Model
- General description of available design features/patterns
- Substrate and matrix
- Descriptions of any other images and associated evidence (e.g., shirt and/or photos of shirt with impression)

4034 Determine appropriate imaging settings to capture available detail in the impression. (See Imaging Considerations - Taking Images)

4036 Capture images with selected settings

4040 Document with additional imagery

4042 Retain and distribute images FAP

4044 Seek assistance from imaging unit or other source FAP

4046 Ask for assistance?

4048 Go to 4050

4050 Conduct Lift?

4052 Catalog with any existing images?

4054 Are there additional evidence items in process?

4056 Catalog with any existing images?
4400 Object: Wet Origin/Non-Porous Substrate/Non-Blood (1 of 3)

4402 Input: Wet origin, non-porous substrate, non-blood

4404 Conduct visual examination to locate impressions by techniques involving white/violet light or alternate light source (ALS); document condition as received.

4406 Determine optimal lighting based on the following:

4408 Is the impression dark?

4410 Are there any 3D questions in the impression?

4412 Are there traces with cornings to consider?

4414 Is the surface clear of grime, dust?

4416 What is the condition of thePAP?

4418 Does the item need to be dry?

4420 Does the item need to be dried? (If possible) or use drying tool

4422 Conducting a hand search using a processing method?

4424 Document observations and/or image PAP

4426 Document and process PAP

4430 Are there impressions visible?

4432 Does the impression need to be dried?

4434 Let dry (if possible) or use drying tool

4436 Are there any 3D questions in the impression?

4438 General Description

4440 Determine appropriate imaging settings to capture available detail in the impression. (See imaging Considerations - Taking Images)

4442 Capture images with selected settings

4444 Does the image capture the available detail?

4446 Contrast a physical or chemical process prior to lifting?

4450 Retain and file the images PAP

4452 Continue with additional imaging?

4454 Ask for assistance?

4456 Seek assistance from Imaging and/or other source PAP

4458 If yes:

GO TO 4470- Wet Origin/ Non-porous/ Non-Blood (2 of 3)

GO TO 4470- Wet Origin/ Non-porous/ Non-Blood (2 of 3)

RETURN TO 4464

4460 Capture images with selected settings

4462 Does the image capture the available detail?

4464 Contrast a physical or chemical process prior to lifting?

4466 Retain and file the images PAP

4468 Continue with additional imaging?

4470- Wet Origin/ Non-porous/ Non-Blood (2 of 3)

This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
4680 Select Physical/Chemical Processing Method(s)

Use visual examination, knowledge, training, experience, preference, characteristics of substrate type (non-porous or semi-porous) and color, surface contaminants, and matrix, and/or agency policy to:

- Select chemical or physical processing technique (and associated applicable lighting scheme) and
- Determine processing sequence (e.g., least destructive to most destructive) or if a fixture is needed.

Consider the following options:

- Light source: Unicrystal iodide (UCI), Amido black, Eisenmenger green, Rupprecht red, Cresyl violet stain, Eosin Y, 3,5-Diamino-2-naphthol (DAN)
- Dark surface: Titanium dioxide
- Are surface color: Blue Star Luminol, Acid Yellow 3 with forensic light source

4692 Did the processing technique improve the impression attachment?

4694 Would additional processing help visualize the impression?

GO TO 4750 - Wet Origin/Non-Porous/Blade (3 of 3)

4696 General Description or Additional Information Obtained

- Whether it is footwear or tire
- Directionality (e.g., measure location on item)
- Whether full or partial impression
- Measurements of length and width, and if the area is from the heel, arch, or ball (tire footprint and can be determined)
- Appearance of wear, damage, and/or inclinations in impression
- Any additional impressions on item
- Observed limitations
- Logos/Make/Model
- General description of available design features/patterns
- Substrate and matrix
- Descriptions of any other images and associated evidence (e.g., shirt and/or photos of shirt with impression)
- Other features or information not previously visualized

4700 Capture Images with selected settings

GO TO 4750 - Wet Origin/Non-Porous/Blade (3 of 3)

4704 Retain Images?

4708 Continue with additional imaging?

4710 Ask for assistance?

4712 Seek assistance from imaging unit or other source PAP

4714 Discontinue with physical/chemical processing of item

RETURN TO 4690

4716 Would additional processing help visualize the impression?

4718 Return and try the imaging technique again with more processing

RETURN TO 4690

GO TO 4750 - Wet Origin/Non-Porous/Blade (3 of 3)

4750 Contact submitter for permission?

4752 Permission obtained?

GO TO 4750 - Wet Origin/Non-porous/Blade (3 of 3)

This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
6000 - Known Assessment (1 of 3). Image/Item Assessment

**Imaging Considerations (Taking Images)**

- **Description**
  - **Scene**: Make sure the scene is present.
  - **Appropriate Scene**: Yes (e.g. Get a view of others).
  - **Focal Resolution**
  - **Camera Settings**
  - **Filter(s)** (if any).
  - **Lighting**
  - Use a polystyrene (PAP) (e.g. Use a Copy Light or Skylight). Diffuse, shadowless, translucent, and/or restrictive light.
  - **Formatting**
  - **Unbleed Format** needed.
  - **PAP Filter Size**
  - **Depth of View**
  - **Contrast**
  - **Noise Reduction**.

- **Notes**: Include any notes that will help in the identification and overall examination.

**Image Assessment (Known and Questioned)**

- **Description**
  - **Scene**: Present?
  - **Content**: Appropriate.
  - **Neural Processing**:
    - **Perspective**
    - **Potential**: Quality, contrast, and potential correction in image processing software.
  - **Focal Lighting**
  - **Are all images present?**
  - **Scene-ade**: Images of vertical images.
  - **Formatting**
  - **Unbleedable/Unrecognizable**
  - **Presence of a protective impression**

**Output**

- **Images of Known**: Present.
  - **Images of Known**: Present with sufficient detail for digital processing.

This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
**6100 - Known Assessment (2 of 3): Test Impressions**

**FROM 6088**
- Choose appropriate path based on whether the rim is footwear or tire
  - Yes: Go to 6102
  - No: Go to 6164

**6102**
- Use case scenario to determine how to make test impression?
  - Yes: Go to 6104
  - No: STOP/Discontinue and proceed PAP

**6104**
- Review case info/scenario to determine whether a negative impression is possible (for rim)
  - Yes: Go to 6108
  - No: Go to 6148

**6108**
- Use knowledge, experience, training, tire size, surface, method availability, and agency policy to select test impression type and method(s).
  - Yes: Go to 6118
  - No: Go to 6150

**6118**
- Test impression capture the available detail?
  - Yes: Go to 6119
  - No: Go to 6152

**6119**
- Create test impression.
  - Yes: Go to 6120
  - No: Go to 6154

**6120**
- Document:
  - Yes: Go to 6134
  - No: Go to 6114

**6134**
- Return tire, file, or archive test impression?
  - Yes: Go to 6146
  - No: Go to 6154

**6146**
- Return tire, file, or archive test impression or submit test impressions to submitting agency PAP
  - Yes: Go to 6140
  - No: Go to 6155

**6155**
- Does the test impression capture the available detail?
  - Yes: Go to 6159
  - No: Go to 6156

**6159**
- Create additional test impression?
  - Yes: Go to 6162
  - No: Go to 6158

**6158**
- Create additional test impression.
  - Yes: Go to 6160
  - No: Go to 6159

**6156**
- Create additional test impression.
  - Yes: Go to 6162
  - No: Go to 6159

**6154**
- Return test impression?
  - Yes: Go to 6146
  - No: Go to 6158

**6152**
- Test the tire (e.g., sections and demarcate the sidewall)
  - Yes: Go to 6155
  - No: Go to 6159

**6150**
- Use knowledge, experience, training, tire size, surface, method availability, and agency policy to select test impression type and method(s).
  - Yes: Go to 6152
  - No: Go to 6159

**6148**
- Roll out manually?
  - Yes: Go to 6150
  - No: Go to 6159

**6144**
- Roll out manually?
  - Yes: Go to 6150
  - No: Go to 6159

**6164**
- Document and/or image:
  - Yes: Go to 6146
  - No: Go to 6159

**Additional Information**
- **Technology Assist**
  - Powder
  - Adhesive Overlays
  - Ink
  - Non-lead shoe print kit
  - Sand
  - Dirt
  - Matches/Straw
  - Biohaz

- **Tire:**
  - Lead metallic: Method used to segment tire into sections
  - Adhesive: Used to apply tire surface in order to push the imaging substrate to create impression overlay (eg, adhesive, vellum, prints like, cardboard, ink, metallic ink)
  - Substrate: Clear acetate roll, paper that is at least the circumference of the tire's rim band

This DRAFT process map provides a visual description and attempts to represent all reasonable variations of casework currently performed by footwear and tire examiners. OSAC does not necessarily support or endorse (as best practices) all of the different steps and paths depicted in this process map.
6200 - Known Assessment (3 of 3): Imaging Test Impressions

FROM 6202

6202 Determine appropriate imaging settings to capture available detail in the impression. (See Imaging Considerations - Taking Images)

6204 Capture images with selected settings

6206 Does the image capture the available detail?
No
Yes

6206 Does the image capture the available detail?

6208 Retain images?
No
Yes

6210 Retain and file the images PAP

6212 Continue with additional imaging?
No
Yes

6214 Ask for assistance?
No
Yes

6256 Seek assistance from imaging unit or other source PAP

6218 Are there additional evidence items to process?
No
Yes

6222 Intercompare test impressions

6224 Perform intercomparison on test impressions and rule variability across known (e.g., characteristics, characteristics X characteristics, etc.)

6228 Are there additional evidence items to process?
No
Yes

GO TO 6262 - Item Characterization

GO TO 6265 - Item Examination/ Digital Processing

Image Considerations - Taking Images

- Posture
  - Stand or sit (make sure this is present)
- Appropriate angle(s) (e.g., 30° x others)
- Frame
- Resolution
- Camera settings
- Filters; Used (if any)
- Lighting
  - Use a stabilizer (PAP)? (e.g., Tripod)
- Direct/oblique: transmitted, reflected, and/or reflective light
- Formatting
  - image format needed
- Date/ Time/ PAP
- Identification/ Record (e.g., L, R, a, b, c, 1, 2, 3, and any agency specific label, PAP)
- No Reflections
- Identify and Account for Presence of multiple impressions
- Note if there has been any processing prior to photos (e.g., selection of substrates, wet, stain)
- Angle of take (e.g., account for curved surface, proximity of camera to impression)
- Contrast
- Noise Reduction
- Camera position (e.g., lens parallel to substrate)
3-D qualities— Three-dimensional characteristics of a footwear or tire track impression.

Background interference— Aberrations in the substrate which the footwear or tire track impressions is present which can cause light or focusing distortions during impression visualization or photography.

Backlighting— Application of light behind a footwear or tire track impression specifically on glass so that the light passes through the impression and into the aperture of the camera.

Barriers— Spray used specifically on footwear or tire track impressions made in soft substrates which hardens on the surface of the impression so that subsequent casting will not damage impression.

Blind search— Conduction a search for footwear or tire-track impressions which are not readily visible to a naked eye by using lighting and or lifting techniques.

Chain of Custody (CoC)— Chronological record of the handling and storage of an item from its point of collection to its final return or disposal.

Chemically or physically processed— Addition of a variety of chemicals or reagents to improve visualization of footwear and tire track impression.

Color contrast— The difference in luminance or color that makes an object distinguishable from other objects within the same field of view.

(Trial) Continuance— The suspension or postponement of a trial or court proceeding.

Contrast— How well black can be distinguished from white at a given resolution.

Copy stand— The stand consists of a platform onto which the item is placed where the camera can be mounted above and parallel to it, usually with an adjustable height. This may or may not include lighting.

Correction— Attempts in image analysis tools to correct or remedy image distortion artifacts.

Depth of Field— The distance that is in focus (sharp) when capturing an image based upon the camera and lens, and their settings.

Distortion— An unclear or inaccurate representation of the footwear or tire in an impression due to interference in the impression-making process or its subsequent retrieval.

Electrostatic Dust Lift— An instrument that utilizes an electrostatic charge as a means of transferring dry origin impressions from a substrate to a film.

Exam grade(photos)— A photograph taken following a specific protocol for the purpose of conducting a forensic comparative examination.

Gel Lift— Gelatin applied to a pliable backing that can be used to lift impressions

Highlighters— Sprays, paints or waxes used to increase contrast of footwear and tire track impressions particularly in snow.

Identifiers— Details use to establish or recognize the identity of; ascertain as a certain item of evidence.

Impressions— The product of direct physical contact of an item, such as a footwear or tire, resulting in the transfer and retention of characteristics of that item.

Investigative lead— Updated information regarding a case which can assist in the investigation.

JPEG— Image compression and storage format specified by the Joint Photographic Experts Group. It is discrete cosine transform-based.

Laboratory Information Management System (LIMS)— Is a type of software designed to improve lab productivity and efficiency, by keeping track of data associated with samples, experiments, laboratory workflows, and instruments.

Layers— One image is stacked on top of another image and can annotated so that the base image is not affected.

Layer tool— Tool used in image processing software such as Photoshop to apply a layer to an image.

Lighting— Application of light to an item of evidence to observer visually of record photographically.

Limitation— A shortcoming or defect.

Memorandum for record (MFR)— Memo covering information that would otherwise not be recorded in writing.
Midrange (photos) – Establishes the location of evidence and what relationship that evidence has to the scene
Natural size – Life-size reproduction. * An image magnification of 1X i.e. the image is the same size as the object.
Noise reduction – Noise treatment - The mixed arrangement of tread blocks sizes used by the tire industry to reduce noise generated by tires.
Outsole/tread design elements – A general category of footwear outsole patterns (i.e. herringbone pattern, lugged outsole pattern, wave pattern, plain soles, etc.).
Overall (photos) – Photographs which capture the global aspects of the crime scene to show exactly where the scene was and to show all boundaries of the scene.
Peripheral impressions – Footwear or tire track impression which appear next to the impressions in question.
Perspective – In image analysis, camera-to-subject geometry, including both camera-to-subject distance and orientation of the camera relative to the subject.
Plane – An imaginary line, flat area or field which lies perpendicular to the optical axis. The “Optical Axis” passes through the centre of the lens and the image sensor.
Quality – An inherent or distinguishing characteristic; a property.
Quantity – Physical properties subject to measurement, such as length, time, weight, and concentration.
Randomly Acquired Characteristics (RACs) – A feature on a footwear outsole or tire tread resulting from random events including, but not limited to: cuts, scratches, tears, holes, stone holds, abrasions and the acquisition of debris. The position, orientation, size and shape of these characteristics contribute to the uniqueness of a footwear outsole or tire tread. Randomly acquired characteristics are essential for an identification of a particular item of footwear or tire as the source of an impression.
RAW – A family of file formats, often specific to different models of digital imagery equipment, that are not yet processed for storage in a 'printable' image format such as JPEG or TIFF. The file extension '.raw' is only one such format.
Reference record – Know footwear or tire track impressions record and stored in a reference library or database.
Scale/Scale type – A ruler marked with a range of calibrated scales (ratios) for drawing and measuring
Schallamach – Microscopic patterns that develop as ridges on rubber material as a result of repeated abrasive forces. These patterns are very similar in their size and appearance to skin friction ridges and are highly individual. They continue to change rapidly as affected by continued abrasion. Schallamach patterns are randomly acquired characteristics. The term gets its name from a researcher of the same name.
Sidewall – The side of an automotive tire between the tread shoulder and the rim bead which contains information specific to the make, model and manufacturing specific to that tire.
Stabilizer – Devices used to remove movement during image capture which include copy stands and tripods.
Subdesignations – Application of unique identifiers to items of evidence.
Substrate – Surface upon which a footwear or tire track impression is deposited.
TIFF – Tagged Image File Format
Tripod – A three-legged stand for supporting a camera or other apparatus.