CLAIMS:

1. An attachment (100, 300) for a microphone (304, 406) the attachment comprising:

a foam structure (102);

a first cavity (108) extending from a first opening (110) at a surface of the foam structure and into the foam structure, the first cavity configured to seal a microphone (304, 406) at least partly into the cavity with sound receiving elements (310) of the microphone fully installed in the structure;

a second cavity (104) extending from a second opening (106) at the surface of the foam structure and into the foam structure, the second opening configured to receive sound from a sound source; and

the first cavity being fluidly connected to the second cavity within the foam structure so that a junction is formed between the first cavity and the second cavity, the junction, the sound cavity, and the sealing of the microphone working to shield the sound receiving elements of the microphone from sound other than received through the second opening.

2. The attachment of claim 1, wherein the foam structure has a spherical shape.

3. The attachment of claim 2, wherein the diameter of the foam structure is between four and twelve inches.

4. The attachment of claim 1, wherein one or more of the first cavity and the second cavity has a cylindrical shape.

5. The attachment of claim 1, wherein a longitudinal axis of the first cavity extends perpendicular to a longitudinal axis of the second cavity.

6. The attachment of claim 1, wherein the diameter of the second cavity is between four and five inches.

7. The attachment of claim 1, wherein the foam structure is an open cell polyurethane foam.

8. The attachment of claim 1, further comprising a microphone (304, 406) coupled to the foam structure.

9. The attachment of claim 1, further comprising an elastic coupling (404), wherein the foam structure is removably mountable to a microphone by the elastic coupling between the first opening of the foam structure and the microphone.

10. The attachment of claim 1, further comprising a pop filter (200, 302) coupled to the foam structure at the second opening.

11. The attachment of claim 10, wherein the pop filter is removably mounted to the foam structure by an elastic coupling between the pop filter and the second opening of the foam structure.

12. A system for noise mitigation, the system comprising:

a microphone (304, 406);

means for installing the microphone within a structure (102) such that sound receiving elements (310) of the microphone are at least partially sealed within the structure;

a cavity (104) extending from an opening (106) at the surface of the structure to a second position within the structure such that an airspace is located between the second position and the sound receiving elements when the microphone is held by said means for installing.

13. The system of claim 12, wherein the structure has a spherical shape.

14. The system of claim 12, wherein the structure is a foam structure.

15. The system of claim 12, wherein the structure is an open cell polyurethane foam.

16. The system of claim 12, wherein the means for installing the microphone within the foam structure include a collar disposed between the microphone and the foam structure.

17. The system of claim 12, further comprising a means for mitigating sound associated with at least one of plosives and sibilants.

18. A method for mitigating noise, the method comprising:

receiving a microphone (304, 406) through a first opening (110) of a foam structure (102) into a first cavity (108) in the foam structure, wherein the microphone extends though the first cavity into a second cavity (104) in the foam structure, the second cavity being fluidly connected to the first cavity within the foam structure and extending from a second opening (106) at a surface of the foam structure;

receiving performance sound from a performance sound source via the second cavity; and

attenuating, by the foam structure, sound waves incident on an exterior surface of the foam structure.

19. The method of claim 18, further comprising seating the foam structure in a cradle of a shock mount (404).

20. The method of claim 18, further comprising elastically coupling a pop filter to the foam structure at the second opening of the foam structure.

21. The method of claim 18, further comprising elastically coupling a microphone to the foam structure at the first opening of the foam structure.

22. The method of claim 18, further comprising absorbing sound waves incident on an exterior surface of the foam structure.

23. The method of claim 18, further comprising attenuating sound waves incident on the interior surface of the sound cavity.

24. An attachment for a microphone (304, 406, 614), the attachment comprising:

a foam structure (102);

a first cavity (608) extending from a first opening (610) at a surface of the foam structure and into the foam structure, the first cavity configured to seal a mobile device (612) at least partly into the cavity;

a second cavity (104) extending from a second opening (106) at the surface of the foam structure and into the foam structure, the second opening configured to receive sound from a sound source; and

the first cavity being fluidly connected to the second cavity within the foam structure so that a junction is formed between the first cavity and the second cavity, the junction, the sound cavity, and the sealing of the mobile device working to shield the sound receiving elements of a microphone coupled to the mobile device from sound other than received through the second opening.

25. The attachment of claim 24, wherein the structure has a spherical shape.

26. The attachment of claim 24, wherein the structure is a foam structure.

27. The attachment of claim 24, wherein the foam structure is an open cell polyurethane foam.

28. The attachment of claim 24, wherein the first cavity has a rectangular cross-sectional area.

29. The attachment of claim 24, wherein a longitudinal axis of the first cavity extends perpendicular to a longitudinal axis of the second cavity.

30. The attachment of claim 24, further comprising an elastic coupling, wherein the foam structure is removably mountable to the mobile device by the elastic coupling between the first opening of the foam structure and the mobile device.

31. The attachment of claim 24, further comprising a pop filter (200, 302) coupled to the foam structure at the second opening.

32. The attachment of claim 31, wherein the pop filter is removably mounted to the foam structure by an elastic coupling between the pop filter and the second opening of the foam structure.

CLAIMS:

1. An attachment for a microphone, the attachment comprising:

a foam structure;

a first cavity extending from a first opening at a surface of the foam structure and into the foam structure, the first cavity configured to seal a microphone at least partly into the cavity with sound receiving elements of the microphone fully installed in the structure;

a second cavity extending from a second opening at the surface of the foam structure and into the foam structure, the second opening configured to receive sound from a sound source, wherein the second cavity is a cylindrical-shaped cavity with a substantially uniform diameter along a longitudinal axis of the second cavity; and

the first cavity being fluidly connected to the second cavity within the foam structure so that a junction is formed between the first cavity and the second cavity, the junction, the sound cavity, and the sealing of the microphone working to shield the sound receiving elements of the microphone from sound other than received through the second opening.

2. The attachment of claim 1, wherein the foam structure has a spherical shape.

3. The attachment of claim 2, wherein the diameter of the foam structure is between four and twelve inches.

4. The attachment of claim 1, wherein one or more of the first cavity and the second cavity has a cylindrical shape.

5. The attachment of claim 1, wherein a longitudinal axis of the first cavity extends perpendicular to a longitudinal axis of the second cavity.

6. The attachment of claim 1, wherein the diameter of the second cavity is between four and five inches.

7. The attachment of claim 1, wherein the foam structure is an open cell polyurethane foam.

8. The attachment of claim 1, further comprising a microphone coupled to the foam structure.

9. The attachment of claim 1, further comprising an elastic coupling, wherein the foam structure is removably mountable to a microphone by the elastic coupling between the first opening of the foam structure and the microphone.

10. The attachment of claim 1, further comprising a pop filter coupled to the foam structure at the second opening.

11. The attachment of claim 10, wherein the pop filter is removably mounted to the foam structure by an elastic coupling between the pop filter and the second opening of the interior of the foam structure.

12 . A system for noise mitigation, the system comprising:

a microphone;

means for installing the microphone within a structure such that sound receiving elements of the microphone are at least partially sealed within the structure;

a cavity extending from an opening at the surface of the structure to a second position within the structure such that an airspace is located between the second position and the sound receiving elements when the microphone is held by said means for installing, wherein the cavity is a cylindrical-shaped cavity with a substantially uniform diameter along a longitudinal axis of the second cavity.

13. The system of claim 12, wherein the structure has a spherical shape.

14. The system of claim 12, wherein the structure is a foam structure.

15. The system of claim 12, wherein the structure is an open cell polyurethane foam.

16. The system of claim 12, wherein the means for installing the microphone within the foam structure include a collar disposed between the microphone and the foam structure.

17. The system of claim 12, further comprising a means for mitigating sound associated with at least one of plosives and sibilants.

18. A method for mitigating noise, the method comprising:

receiving a microphone through a first opening of a foam structure into a first cavity in the foam structure, wherein the microphone extends through the first cavity into a second cavity in the foam structure, the second cavity being fluidly connected to the first cavity within the foam structure and extending from a second opening at a surface of the foam structure, wherein the second cavity is a cylindrical-shaped cavity with a substantially uniform diameter along a longitudinal axis of the second cavity;

receiving performance sound from a performance sound source via the second cavity; and

absorbing, by the foam structure, sound waves incident on an exterior surface of the foam structure.

19. The method of claim 18, further comprising seating the foam structure in a cradle of a shock mount.

20. The method of claim 18, further comprising elastically coupling a pop filter to the foam structure at the second opening of the foam structure.

21. The method of claim 18, further comprising elastically coupling a microphone to the foam structure at the first opening of the foam structure.

22. The method of claim 18, further comprising attenuating sound waves incident on the interior surface of the sound cavity.

23. An attachment for a microphone, the attachment comprising:

a foam structure;

a first cavity extending from a first opening at a surface of the foam structure and into the foam structure, the first cavity configured to seal a mobile device at least partly into the cavity;

a second cavity extending from a second opening at the surface of the foam structure and into the foam structure, the second opening configured to receive sound from a sound source, wherein the second cavity is a cylindrical-shaped cavity with a substantially uniform diameter along a longitudinal axis of the second cavity; and

the first cavity being fluidly connected to the second cavity within the foam structure so that a junction is formed between the first cavity and the second cavity, the junction, the sound cavity, and the sealing of the mobile device working to shield the sound receiving elements of a microphone coupled to the mobile device from sound other than received through the second opening.

24. The attachment of claim 23, wherein the structure has a spherical shape.

25. The attachment of claim 23, wherein the structure is a foam structure.

26. The attachment of claim 23, wherein the foam structure is an open cell polyurethane foam.

27. The attachment of claim 23, wherein the first cavity has a rectangular cross-sectional area.

28. The attachment of claim 23, wherein a longitudinal axis of the first cavity extends perpendicular to a longitudinal axis of the second cavity.

29. The attachment of claim 23, further comprising an elastic coupling, wherein the foam structure is removably mountable to the mobile device by the elastic coupling between the first opening of the foam structure and the mobile device.

30. The attachment of claim 23, further comprising a pop filter coupled to the foam structure at the second opening.

31. The attachment of claim 30, wherein the pop filter is removably mounted to the foam structure by an elastic coupling between the pop filter and the second opening of the interior of the foam structure.