In C++, both static local variables and global variables have different scopes, lifetimes, and access levels.

1. **Scope**:
   * **Static local variable**: A static local variable is declared inside a function using the **static** keyword. It is accessible only within the block where it is declared.
   * **Global variable**: A global variable is declared outside of any function or class. It is accessible from any part of the program.
2. **Lifetime**:
   * **Static local variable**: A static local variable exists for the entire duration of the program but is initialized only once, the first time the function containing it is called. Its value persists across multiple function calls.
   * **Global variable**: A global variable also exists for the entire duration of the program. It is initialized before the **main()** function is called and remains in memory until the program terminates.
3. **Access**:
   * **Static local variable**: A static local variable is accessible only within the function where it is declared. It is not visible outside the function.
   * **Global variable**: A global variable is accessible from any part of the program, including other functions and files.
4. **Namespace**:
   * **Static local variable**: It does not affect the global namespace. Each function can have its own static local variables with the same name without causing conflicts.
   * **Global variable**: It resides in the global namespace and can potentially cause naming conflicts if variables with the same name are declared in different translation units.
5. **Initialization**:
   * **Static local variable**: It can be initialized explicitly or left uninitialized, in which case it is implicitly initialized to zero (or equivalent for the given type).
   * **Global variable**: It can also be initialized explicitly or implicitly. If not explicitly initialized, global variables are initialized to zero (or equivalent) by default.

In summary, while both static local variables and global variables persist for the entire duration of the program, they differ in scope, access, and namespace. Static local variables are confined to the function in which they are declared and have local scope, while global variables are accessible from any part of the program and reside in the global namespace.